

DEVELOPMENT AND SUBSEQUENT COMPARISON OF THE COST OF LIVING IN DIFFERENT SOCIAL GROUPS IN CZECH REPUBLIC

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Abstract

ANTOŘOVÁ VERONIKA, STÁVKOVÁ JANA, SKÁLOVÁ DANA, BIRČIAKOVÁ NAĎA: *Development and subsequent comparison of the cost of living in different social groups in Czech Republic*. Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis, 2013, LXI, No. 4, pp. 841–847

This paper deals with development and subsequent comparison of the cost of living in different social groups in the Czech Republic. There is an analysis performed using data available from entry of the Czech Republic into the European Union till 2011. For this purpose, it will be interesting to track those measures in a timeline including the period before the last economic crisis, during the crisis as well as after this event. The economic crisis began in 2007 and has significantly affected living conditions of many people, who had to change their consumer behaviour or lifestyle. In the file used for the analysis, the individuals are divided into different social groups (i.e. employees, self-employed, pensioners and unemployed). The paper is focused on individuals according to the division of expenditure COICOP (Classification of Individual Consumption by Purpose). As the second source of the performed analysis are taken the results of a sample survey EU-SILC (European Union Statistics on Income and Living Conditions) from 2005 till 2011. The paper considers mainly cost of living, but also household income because it is possible to determine from this indicator how much money households have left for other activities (as disposable income). The analysis is focused on whole set of individual households including low-income households at risk of poverty. According to widely used methodology within the European Union, households are considered to be at the risk of poverty if their income is lower than its median, which is 60%.

social group, EU-SILC, COICOP, cost of living, household income

The article sets out to investigate development of cost of living in different social groups in the Czech Republic and their subsequent comparison in the period from 2005 till 2010. Membership in a particular social group (employed, self-employed, pensioners and unemployed) is determined by economic activity and substantially affects standard of living, which is closely related to the cost of living. Therefore they are the sectors of the population where consistent poverty is most prevalent (Rodrigues, Andrade, 2010). Bradshaw and Fitch (2003) found that the use of three different measures for poverty in the identification of different groups of people defined as poor or socially excluded.

Dewilde (2004) concludes that different poverty measures identify different groups as poor. Wolff (2009) states, that there are four common measures for the numerator of standard of living – gross domestic product, net national product, total personal income and total personal disposable income. In this article is used total personal disposable income. Economic analysis is most effective if focused on a clearly defined group, such as households (Stutely, 2011). Based on previous findings that income of unemployed inhabitants grows faster than income of pensioners, the authors decided to investigate the situation of different social groups with emphasis on the development

during the economic crisis. Income situation is one of the main factors that affect the household living standards (Svatořová, 2010). Income situation is assessed on the basis of disposable income, which is obtained from the total income after taxation and transfer payments addition. The social policy of the European Union continues defining households at risk of poverty in the net relative expression based on median income (Whelan, Maitre, 2006). Households use one part of disposable income for consumption and according to the marginal rate of saving the other part of income will be saved (Dědek, 2002). Financial burden on some households may be literally unbearable during the time of economic crisis and rising unemployment. Households can be unable to pay debts or suffer from poverty. This all reflects on individuals and on society as a whole (Bartořová, Stankovičová, 2009). Role of the state in people's living standards is significant and irreplaceable. Social policy is an activity that seeks to influence social reality. Its task is to eliminate inequalities between individuals and create favorable conditions for life (Krebs, 2010). The level of social security is an important element of quality of life. It affects the ability of individuals to secure a dignified way of life by the way that they will not go under the poverty line (Blažej, 2005).

METHODOLOGY AND RESOURCES

The article draws from two major inquiries carried out by the Czech Statistical Office. There are representative surveys where households are selected on the basis of quota sampling. Reporting unit for the survey is a household. The first survey is the Household Budget Survey, which provides data on secondary issues and structure of household consumption. The article uses mainly data in percentage terms that provide information on household expenditure for each item according to the COICOP (Classification of Individual Consumption by Purpose). The HBS data is publicly available on the Czech Statistical Office website. Data obtained by sampling SILC (Statistics on Income and Living Conditions) is mandatory for all Member States of the European Union and is used as second source. Primary data from SILC is not publicly available and therefore was purchased by Mendel University in Brno for research purposes. We can only find specific SILC aggregate outputs on the Czech Statistical Office website. First interviews took place in the Czech Republic in 2005 under the title "Living conditions 2005". The latest data known is related to 2010, taken from "Living conditions 2011" survey. The HBS data takes net income into account and is also used as the SILC file. Net cash income is obtained from gross income minus deductions of health and social insurance contributions and income tax. Sampling feature of the economic activity of the head of household is analysed from 2006. Data from SILC was distributed on the basis of this character. There are employees,

self-employed, seniors (without EA member in the household) and unemployed. From the data SILC households falling into poverty line were selected (at risk of poverty). These are households whose monthly disposable income is less than 60% of the median income as defined by the European Union (CSO¹, CSO²).

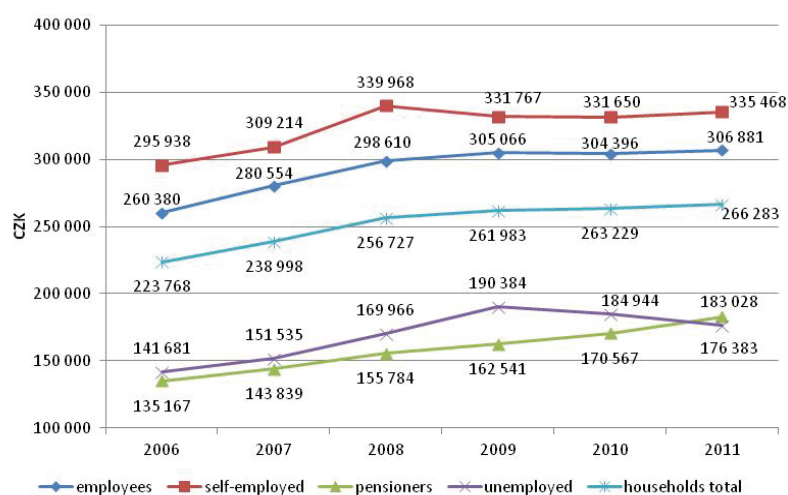
RESULTS AND DISCUSSION

Detailed analysis of the cost of living in particular social groups shows that amount of consumer expenditures develops very differently in all social groups. The highest consumption expenditures were discovered in the self-employed group throughout the years covered in the analysis. Very similar expenditures development was found out in the employees group. Consumer spending has been growing by self-employed till 2008 and started to decline afterwards. Consumer spending in the group of unemployed grew significantly from 2006 till 2009 but has declined sharply since then. Consumer spending rose in the group of seniors throughout the examined period. In 2011 consumption expenditures of households headed by an unemployed person got a lower value than consumption expenditures of senior households. Consumer spending in the group of unemployed grew at a significant rate from 2006 till 2009 however has started declining sharply since then. The development of various social groups can be seen in Fig. 1.

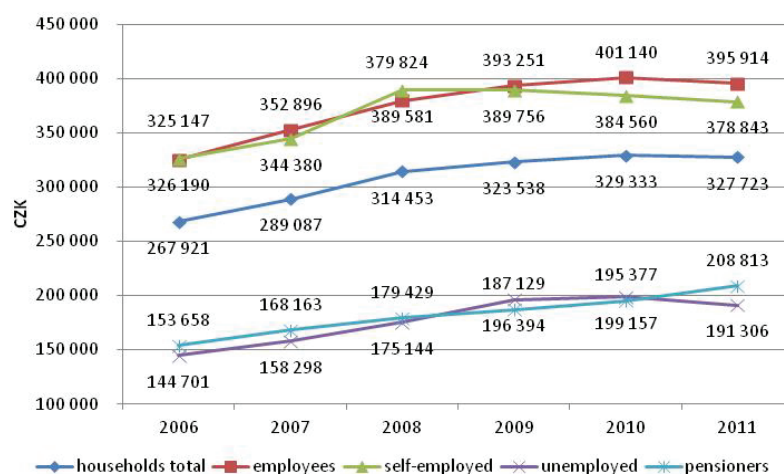
Evolution of the consumer spending is negative especially for elderly households, which increased costs for monitoring by more than 35% while increase by the group of unemployed was 24%. There is an increase by nearly 18% in households of employees while in the group of self-employed the increase is 13% only. It can be assumed that the cost of living of households increased in 2012 because of a higher VAT which affects households especially in terms of purchasing food, housing cost as well as other living costs.

Fig. 2 shows development of net income from the Household Account compared with income from the SILC. Since there were found only slight differences, the data from the HBS was used instead.

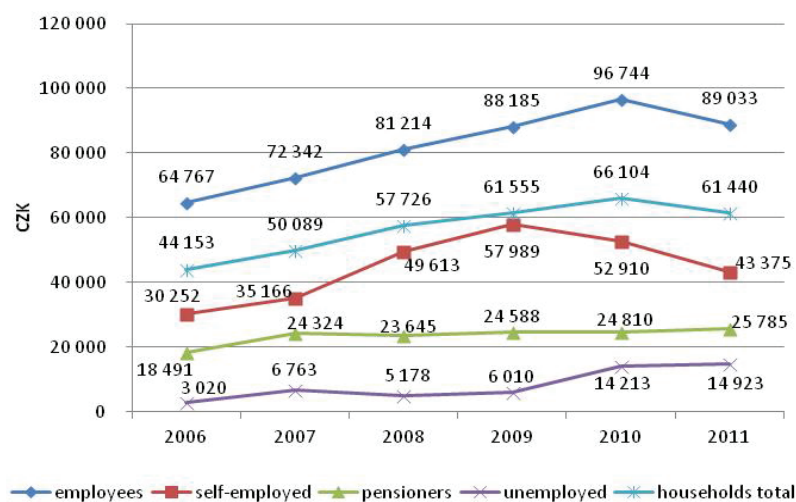
Income of self-employed has been gradually declining since 2008, which can be caused by the economic crisis. On the other hand income of employees had been growing steadily from 2006 till 2011, when a decrease occurred. The groups of unemployed and pensioners have significantly lower incomes during the monitored period. There was an income increase by almost 36% in the group of pensioners from 2006 till 2011. In the group of unemployed there was an income increase by more than 32% in comparison to an increase by 22% in the group of employed while there was an increase by only 16% in the group of self-employed. When comparing incomes with expenditures, the group of pensioners is doing worst – while revenues



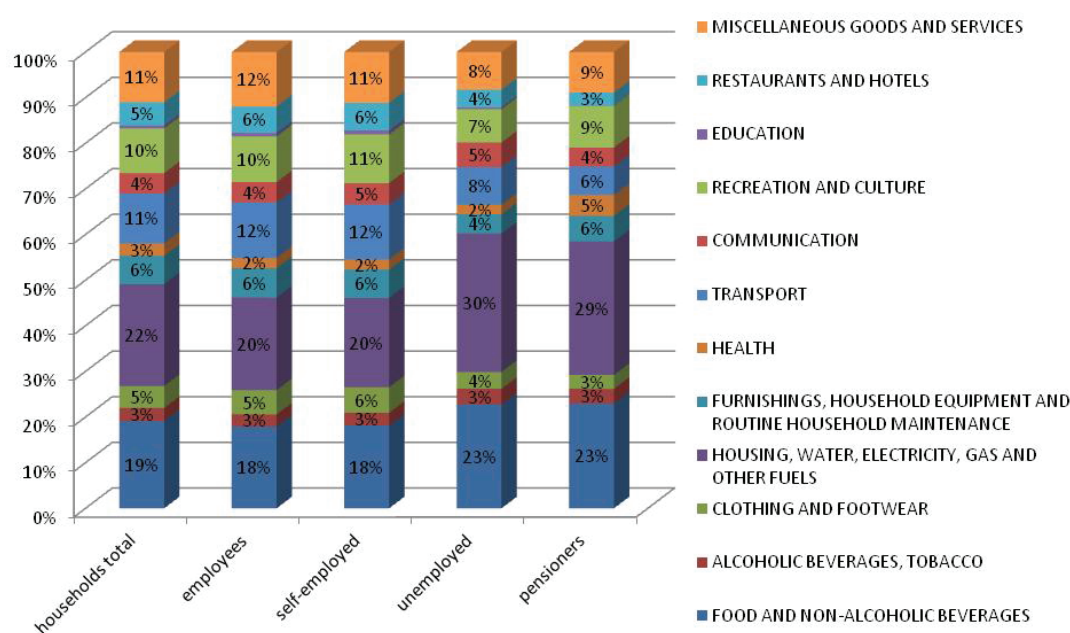
1: Consumption expenditures (COICOP classification) for different social groups (authors' work, CSO³)



2: Net household income (authors' work, CSO³)



3: Difference between net cash incomes and consumption expenditures (authors' work, CSO³)



4: Consumption expenditures 2011
(authors' work; CSO³)

increased by 36% during the reporting period, the cost of living increased by as much as 35%. It is negatively seen that the group of pensioners with their income and cost of living is very close to the level of the group of unemployed. Regarding pensioners' income and living conditions their situation should be at a much higher level than it is at present.

Fig. 3 shows absolute difference between net cash incomes and expenditures on consumption. The most significant changes occurred in the group of employees and self-employed.

The difference between net cash incomes and expenditures on consumption showed that cash balances grew fastest within the group of employees until 2010 when a decrease was recorded. In 2006, there was the cash balance of 64.767 CZK in the group of employed and the cash balance continued to grow up to the level of 96.744 CZK in 2010. There was a drop to 89.033 CZK recorded year after. It is very interesting that households headed by self-employed had a difference between income and expenses in the amount of 30.252 CZK in 2006 which is by more than a half less in comparison to the group of employed. In 2011 the cash balance for the self-employed was only 43.375 CZK. While all groups have been recording a drop of cash balances since 2010, a rise has been found out in the group of unemployed people. Development of cash balances was almost stable in the group of pensioners.

Fig. 4 shows next part of the results that is already related to specific issues of individual groups according to the COICOP classification. In 2011 pensioners' households spent 52% of their income on housing and food. Pensioners spent the same amount of money on housing as in 2006 however

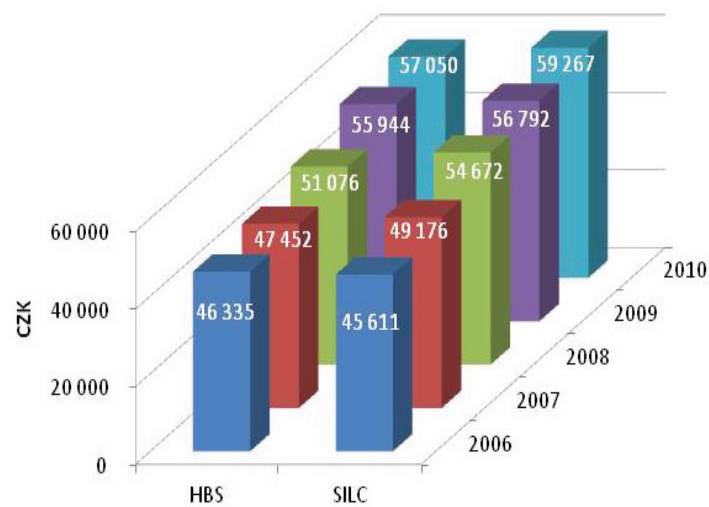
the expenditures on food have decreased. A very similar expenditures structure have had households of employees and self-employed, who have spent 38% of their incomes on housing and food in total.

The largest item of expenditure in 2006 was apparently the group including housing, water, energy and fuel followed by food and non-alcoholic drinks. Both aforementioned groups are most demanding for the group of pensioners, for whom these two groups make 55% of their income. Vice versa the group of pensioners spends least money on restaurants and hotels, education, recreation & culture and transport. Self-employed people spend on housing and food around 37% of their income. Following Fig. 5 shows detailed changes in individual items of consumer spending from 2006. The biggest drop in consumer spending occurred in food and non-alcoholic beverages category by the group of pensioners. It is possible that pensioners' households have started buying cheaper food or have reduced its consumption. The highest growth of expenditures in the category 'housing, water, electricity, gas and other fuels' was recorded by unemployed and pensioners from 2006 till 2011. Pensioners decreased expenditures on furniture and household equipment by 2.8%, however there was an increase on transportation by 2.6% during the monitored period.

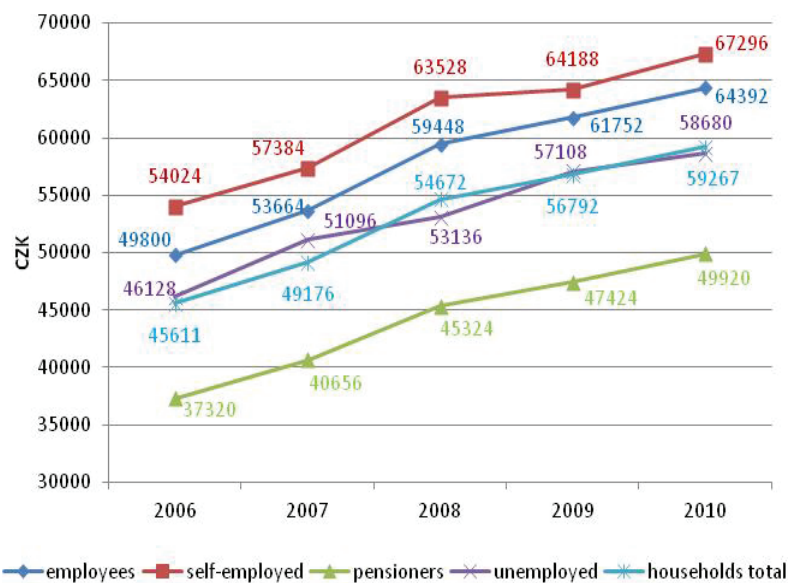
According to the Household Budget Survey, the costs of living (housing, water, electricity, gas and other fuels) were around 20% of households' income in 2006 and increased to 22% in 2011. The costs of living were compared within SILC and HBS. In both of these major surveys published by CSO, yearly housing costs are very similar. Exact values can be seen below in Fig. 6.

	employees		self-employed		unemployed		pensioners without EA members	
	Δ (2009/2006)	Δ (2011/2006)	Δ (2009/2006)	Δ (2011/2006)	Δ (2009/2006)	Δ (2011/2006)	Δ (2009/2006)	Δ (2011/2006)
Food and non-alcoholic beverages	-0,5%	-0,8%	-0,1%	-0,3%	-2,3%	-1,5%	-2,4%	-3,7%
Alcoholic beverages, tobacco	-0,1%	-0,2%	-0,2%	-0,1%	0,3%	-0,4%	0,0%	0,5%
Clothing and footwear	-0,3%	-0,5%	-0,4%	-0,9%	-0,2%	-0,5%	-0,4%	0,2%
Housing, water, electricity, gas and other fuels	0,7%	1,5%	0,4%	1,2%	-1,6%	2,9%	0,1%	1,8%
Furnishings, household equipment and routine household maintenance	-0,3%	-0,7%	0,3%	-0,2%	0,8%	0,0%	-0,3%	-2,8%
Health	0,6%	0,6%	0,6%	0,5%	0,5%	0,1%	1,0%	-1,3%
Transport	-0,5%	-0,3%	-0,9%	0,7%	0,7%	1,6%	0,7%	2,6%
Communication	-0,1%	-0,2%	-0,2%	-0,5%	0,3%	-0,1%	-0,4%	1,0%
Recreation and culture	-0,1%	-0,8%	-0,6%	-1,0%	1,3%	-0,8%	0,9%	-0,7%
Education	0,1%	0,2%	-0,1%	0,0%	0,2%	-0,2%	0,0%	0,4%
Restaurants and hotels	0,1%	0,1%	0,4%	0,4%	0,2%	-0,3%	0,5%	1,5%
Miscellaneous goods and services	0,6%	0,7%	0,7%	0,4%	-0,3%	-0,7%	0,3%	0,7%

5: Changes in particular items of households' consumption expenditure by social groups between 2006 and 2011 (authors' work; CSO³)



6: Housing costs according to HBS and SILC (authors' work; CSO³, CSO¹)



7: Costs of housing according to individual social groups (authors' work; CSO³, CSO¹)

I: *Households at risk of poverty for different social groups in %*

	2004	2005	2006	2007	2008	2009	2010
employees	3.07	3.4	2.68	2.28	2.01	2.54	2.9
self-employed	5.12	4.47	5.61	5.52	5.92	8.57	7.38
pensioners	6.10	6.09	6.27	7.62	9.42	7.58	8.84
unemployed	66.41	56.76	59.3	52.99	66.88	52.61	56.64

(authors' work; CSO¹)

Fig. 7 shows the cost of living according to the SILC social groups. During the monitored five-year period the housing costs have increased around 33% for pensioners which are the highest increase of all groups. In the group of employed the cost of living increased by more than 29% and the group of unemployed recorded increase by 27%. The lowest increase was found out by the self-employed where costs went up by 25%.

Within each social group, there was calculated median income and quantified percentage of households at risk of poverty based on SILC data. Exact values can be seen in Tab. I.

Facing least risk of poverty are households headed by an employed person. A significant increase in the number of households who are endangered by the level of income occurred in the group of self-employed and pensioners. In 2008 nearly 9.5% of senior households were under the poverty line. The amount of households at risk of poverty fluctuates substantially among the group of unemployed during the reporting period. In 2008 more than 66% of households headed by an unemployed person lied below the poverty line. It is very interesting that even if the head of a household is an unemployed person (around 40% of households), their income is above the poverty line.

CONCLUSION

The analysis of costs and income of individual households have showed how big influence is a head of a household having on their living situation. Comparison of consumption expenditures with an average household has shown that the groups of self-employed and employed have much higher consumption expenditures. On the other hand households of unemployed and pensioners have very low level of expenditures. From 2006 till 2011 the cost of living increased most significantly in the group of pensioners by more than 35%. Net cash income households have been collected from two large surveys (SILC and HBS). The surveys have been compared with each other and it has been concluded that differences between the results are insignificant. Values from budget statistics were therefore used for subsequent income analyses. Yearly amount of net income of the self-employed

social group was very similar to that of employed. However the groups of seniors and employees had lower yearly income by nearly a half. Even though the highest income increase was recorded by pensioners by almost 36%, it is negatively seen that this group is with its income level very close to the group of unemployed. Pensioners' income situation and their living conditions should be at a much higher level than it is currently. Difference between net cash incomes and expenditures on consumption showed that the cash balances grew fastest by the group of employees until 2010 when a decline occurred. It is very interesting that households headed by self-employed have had much lower cash balances than households of employees. A very stable development of cash balances was observed in the group of pensioners and regarding the group of unemployed the level of cash balances has even grown since 2010.

Another part of this paper was related to the specific issues according to the COICOP classification. The largest item of household expenditures is the cost of living category including housing, water, electricity, gas and other fuels, followed by the category food and non-alcoholic beverages. In 2011 pensioners' households spent 52% of their income on housing and food while in 2006 it was 55%. The group of self-employed spent around 37% of their income on these two categories during the same period. Pensioners spent same amount of money on housing as in 2006, however food expenditures have decreased. In the group 'food and non-alcoholic beverages' the biggest drop in consumer spending occurred by pensioners. It is possible that households of pensioners have started to buy cheaper food or have reduced its consumption. A very similar expenditures structure have had households of employees and self-employed, who spent 38% of their income on housing and food. Detailed analysis of the cost of living according to the SILC showed that during the reported five-year period the costs have grown most by pensioners (increase by 33%). Housing costs are also among the fastest growing costs of living. Most households at risk of poverty is in the groups of unemployed and pensioners. On the other hand the smallest percentage of households endangered by poverty is in the group of employees.

SUMMARY

Positive living conditions should be one of the priority objectives of every developed country. In the paper there have been analysed different social groups on the basis of two major surveys conducted

by the Czech Statistical Office, specifically the HBS and the SILC. Both surveys provide representative data. Especially consumer spending data according to the COICOP classification was collected from the HBS. The SILC data, which especially deals with the income side and living standards, was compared to the HBS. The main objective of this paper was to determine how big are revenue and expenditure differences between households according to the social status of a household's head. As a negative effect can also be seen the rising percentage of households at risk of poverty. It was found out that households where its head is employed or self-employed are very similar to each other. Another groups whose characteristics have been very similar are pensioners and unemployed. Particular consumer expenditures of each social group were also surveyed. The largest item of household expenditures for all four social groups is the cost of living category including housing, water, electricity, gas and other fuels, followed by the category food and non-alcoholic beverages. The analysis of cost of living has showed that these costs have grown the most among pensioners since 2006 (by more than one third). Housing costs are also among the fastest growing costs of living. In 2011 pensioners' households spent 52% of their income on housing and food. Pensioners spent the same amount of money on housing as in 2006 however the expenditures on food have decreased. It is possible that pensioners' households have started buying cheaper food or have reduced its consumption. The paper also deals with households at risk of poverty. Based on a unified EU methodology the poverty line is defined as 60% of median income. The least vulnerable households facing risk of poverty are of employees while the most vulnerable ones are households headed by an unemployed person.

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