

THE ANALYSIS OF LATVIA HOUSEHOLDS' CONSUMPTION EXPENDITURE IN SCOPE OF SUSTAINABLE DEVELOPMENT

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ABSTRACT

Basing on critical analysis of Latvia households' consumption expenditure structure during the period from 2003 until 2010, the authors have identified the main tendencies of changes and characterized the main macroeconomic indicators, which have seriously influenced the consumption structure during different phases of economic cycle. The authors have applied econometric methods to characterize the correlation of particular consumption expenditure groups' proportion with households' consumption expenditure. The analysis enabled the authors to detect, which consumption expenditure groups exactly are the most important for ensuring the welfare level, and E. Engel's regularity was also discussed in this respect. The analysis of the data obtained in scope of the households' member survey enabled the authors to identify the main directions of consumer behaviour changes during the economic recession period and present proposals for improvement of consumption as a significant indicator of country's welfare and sustainable development.

KEYWORDS: *Latvia households, consumption expenditure, welfare level.*

JEL CODES: E21, E31, H31

Introduction

In nowadays, sustainable development issues acquire more importance in countries' national programmatic documents, e.g. materials of the United Nations Commission on Sustainable Development, and are the topic of the day in scientific conferences. Lately, sustainable development has a special focus on the population's life quality issues and welfare, which is closely connected with population's sustainable consumption, living conditions, and poverty reduction. The definition provided by Latvia Commercial Activity Competitiveness and Innovation Promotion Programme 2007–2013 states that sustainable development is integrated and balanced development of society welfare, environment and economy, which satisfies the population's current social and economic needs; ensures compliance with environmental requirements and does not jeopardize the satisfaction of next generations' needs as well as ensures the conservation of biodiversity. According to this definition, the consumption quality has an important role – it reflects and aggregates both indicators of economic dimension and resulting indicators of social dimension thus indicating at the character of sustainable development and importance of its pillars' integration. Under conditions, when the growth rate of countries is slowing down and new recession threats are serious enough, it is significant to emphasize the factors affecting consumption and identify the necessity

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to change the former consumption habits. In scope of the current research, the authors have focused on the main macroeconomic indicators which influenced the consumption structure in Latvia during the period from 2003-2010. The aim of the research is to reveal the consumption in the context of households' expenditure structure as an important indicator of sustainable development.

The aim of the research has set the following tasks:

- to characterize changes in the structure of households' consumption expenditure in the period from 2003 until 2010;
- to reveal the factors influencing households' consumption;
- to identify the directions of households' consumption behaviour changes under conditions of deterioration of consumption quality.

In scope of the paper development, the following economic research methods were applied: analysis and synthesis, induction and deduction; monographic method; graphic method; sociological methods; statistical and econometrical methods.

The authors of the paper have used appropriate theoretical findings and research results of foreign and Latvian scientists, annual reports of Latvia households' budget, the website of Central Statistical Bureau (hereafter CSB) of the Republic of Latvia as well as primary information obtained in two surveys performed by the authors in 2011 and 2012.

1. The structure of households' consumption expenditure and its changes in the period from 2003 until 2010

The amount of consumption expenditure is regarded as one of the sustainable development indicators, which reveals population's welfare. This especially refers to the expenditure proportion of food in the overall structure of the household's consumption expenditures.

After arranging the goods and services consumed by Latvia households in the descending order according to their specific weight in the consumption structure per 1 member of the household in the period from 2003 until 2008 (Figure 1), it was detected that even during the period of economic growth the largest proportion was formed by food – almost 29 %, which is approximately one third of all the consumption costs.

Consequently, by the mentioned indicator Latvia cannot be brought in line with the welfare standards of highly developed countries, as for e.g. in Luxemburg, according to the Eurostat data of households' budget survey, the expenditure on food and non-alcoholic beverages do not exceed 15 % of the total consumption expenditure.

The second most important group of consumption costs is "Transport", which during the analyzed period made up more than 1/10 of the overall consumption expenditure structure. This suggests that the households in their daily life are very mobile as very often household members have to commute long distances from home to work.

The third most important position of consumption expenditure is "Dwelling, water, electricity, gas and other fuels", which in the overall consumption structure makes up approximately 12 %. In general, households spend more than 54 % of their total consumption expenditure on the previously mentioned first three groups of consumption.

The positive sign is that households spend approximately 6–7 % of their consumption expenditure on "Recreation and culture" and "Communication", yet negative is the fact that even during the economic growth period the expenditure positions "Health" and "Education" have been ranked in the last places of the consumption expenditure structure.

After comparing households' consumption structure with the recession period of Latvia economy (Figure 1) it can be concluded that:

- the three expenditure groups have remained unchanged, however their sequence has changed as the second place was taken by the position "Dwelling...";
- in the cumulative proportion aspect, the mentioned expenditure groups in the households' consumption structure made up for 2.3 % larger proportion than during the economic growth period;

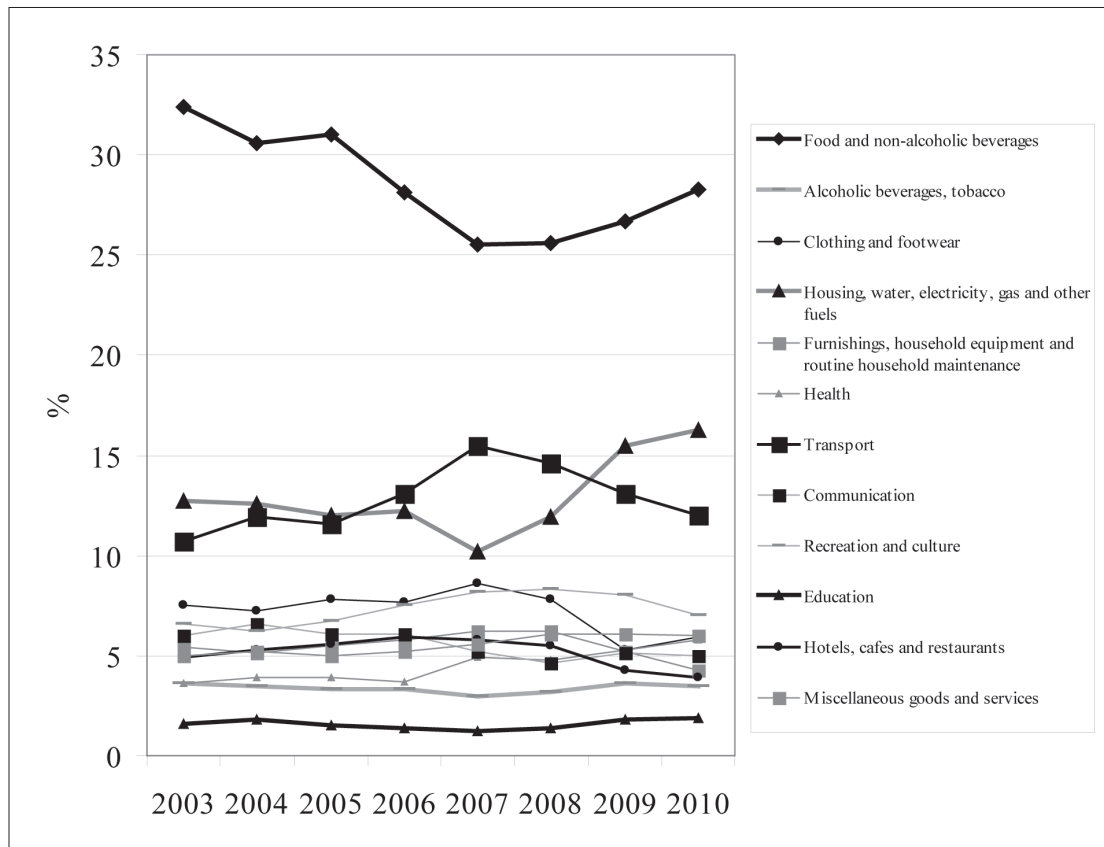


Figure 1. The Dynamics of households' consumption expenditure on one household member in % in the period from 2003 until 2008

Source: authors' calculations according to the data of CSB of the Republic of Latvia

- the households have started to devote less resources on such expenditure groups as “Clothing and footwear”, “Furnishings, household equipment and routine household maintenance”.

Any household by its consumption expenditure chooses a particular consumption model which is characterized by particular regularities depending on the household's consumption priorities. One of such regularities was discovered by the German statistician Ernst Engel – the regularity between the household's income and food and non-alcoholic beverages' consumption proportion against the total expenditure. The Engel's regularity, according to modern requirements, is formulated as follows: alongside with the growth of households' prosperity, their expenditure on food and non-alcoholic beverages increase in absolute numbers and their proportion against the disposable income amount envisaged for consumption decreases (Ciemina, 2009: 34).

Food and non-alcoholic beverages are the largest expenditure position in the households' expenditure per one household member, which can be maximally satisfied for a particular time. Therefore, such a regularity can be detected that under conditions of sufficient resources after maximal satisfaction of hunger and thirst it is possible to allocate more resources to other needs.

The substantiation for this regularity existence is based on the fact that the particular expenditure position exists regardless of income and level of life – everyone needs food to ensure one's life process. Moreover, households during the economy growth period cannot consume significantly more food than during the economy recession period although during the economy growth period they are able to purchase much more expensive and consequently more qualitative food. (Krastiņš, 2004: 70).

Considering the E. Engel's regularities' expression under Latvia conditions, it should be noted that the regularity will be analyzed taking into consideration the influencing indication household consumption expenditure of one household member per month and the resulting indication "Food and non-alcoholic beverages" expenditure consumption proportion in scope of the households' consumption expenditure structure (Figure 2).

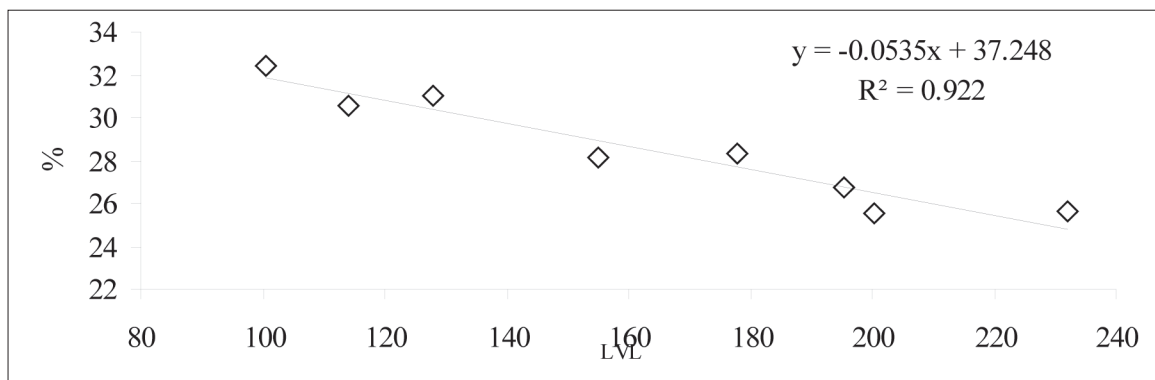


Figure 2. The share of consumption expenditure group "Food and non-alcoholic beverages" in the overall expenditure structure of a household member per month in percentage points depending on the household's consumption

Source: authors' calculations according to the data of CSB of the Republic of Latvia

The calculated correlation coefficient $r = -0.96$ does not indicate a tight correlation of the mentioned consumption expenditure group with the households' consumption expenditure in LVL on one household member per month. Such connection with $P = 0.95$ credibility indicates that alongside with the increase of resources allocated for consumption on one household member, the food consumption proportion on one member has decreased. Besides, the determination coefficient $R^2 = 0.92$ points at a tight connection.

In order to detect, which positions of consumption expenditure are the most important in the context of welfare level and which are less sensitive to households' consumption expenditure on one household member per month, the following relevant correlation, determination coefficients and p-values were calculated (Table 1).

It is possible to conclude that consumption expenditure group "Alcoholic drinks, tobacco", "Clothing and footwear", "Housing, water, electricity, gas and other fuels", "Furnishings, household equipment and routine household maintenance", "Education" and "Hotels, cafes and restaurants" cannot be used as indicators of households' prosperity. The proportion of the particular consumption expenditure group in the overall households' consumption expenditure structure has a weak correlation with the total households' consumption expenditure on one household member.

Different situation can be observed in the consumption groups "Food and non-alcoholic drinks", "Communication", "Health", "Transport", "Recreation and Culture" and "Miscellaneous goods and services", the changes of which in the structure of consumption expenditure give evidence of changes in the population's welfare. The increase of the proportion of the groups "Food and non-alcoholic drinks" and "Communication" in the structure of consumption expenditure gives evidence of deterioration of population's welfare, whereas decrease of the particular consumption expenditure groups' proportion points at population's increasing welfare.

The increase of the proportion of the consumption expenditure groups "Health", "Transport", "Recreation and Culture" and "Miscellaneous goods and services" in the consumption expenditure structure points at population's increasing welfare. Respectively, during the economic recession period these particular consumption expenditure groups will be the first on which the households will try to cut spending.

Table 1. Correlation coefficients of consumption expenditure groups, determination coefficients and p-values in relation to the households' disposable income on one household member per month from 2003 until 2010

Consumption expenditure group	<i>r</i>	<i>R</i> ²	p-value
Food and non-alcoholic beverages	-0.960	0.922	0.000
Alcoholic beverages, tobacco	0.493	0.243	0.210
Clothing and footwear	0.087	0.008	0.840
Housing, water, electricity, gas and other fuels	0.045	0.002	0.005
Furnishings, household equipment and routine household maintenance	0.345	0.119	0.040
Health	0.726	0.527	0.040
Transport	0.842	0.709	0.010
Communication	-0.901	0.812	0.002
Recreation and culture	0.916	0.839	0.001
Education	0.285	0.081	0.490
Hotels, cafes and restaurants	0.047	0.002	0.910
Miscellaneous goods and services	0.874	0.764	0.005

Source: CSB of the Republic of Latvia

Under conditions when the welfare level increases, households tend to allocate the largest proportion of expenditure to such consumption expenditure as "Clothing and footwear" and "Recreation and culture" (Ciemiņa, 2009: 70).

2. Factors influencing consumption

Since 2003 the GDP per capita in Latvia tended to increase, which pointed at increasing welfare (Figure 3). Significant changes were caused by economic recession period when the GDP per capita in Latvia in 2009 decreased for 654 LVL or 1.2 times comparing to the year 2008. The slowdown of economic activity caused a negative effect on employment.

Since 2003 the decrease in the registered unemployment gave evidence of economic growth, which during the economic growth period reached its lowest level in 2008 (Figure 4). Significant changes can be observed in 2009, when the registered unemployment level in comparison with 2008 increased three times. Alongside with employment reduction households' welfare level deteriorated and the ability to consume decreased.

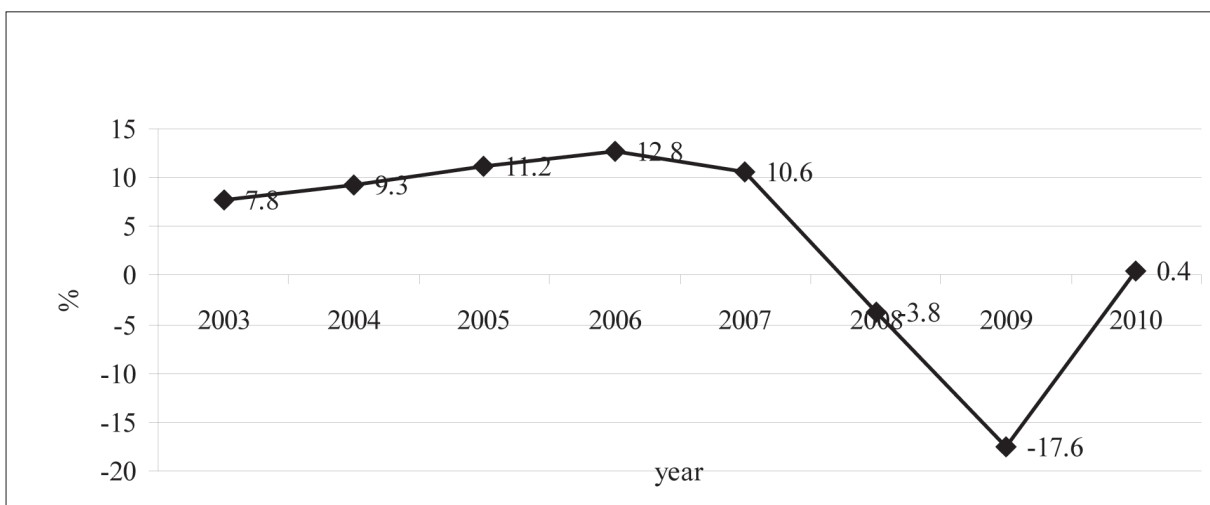


Figure 3. The Dynamics of GDP per capita, changes in % to the previous year in Latvia during the period from 2003 until 2010

Source: authors' construction according to the data of CSB and Ministry of Economics of the Republic of Latvia

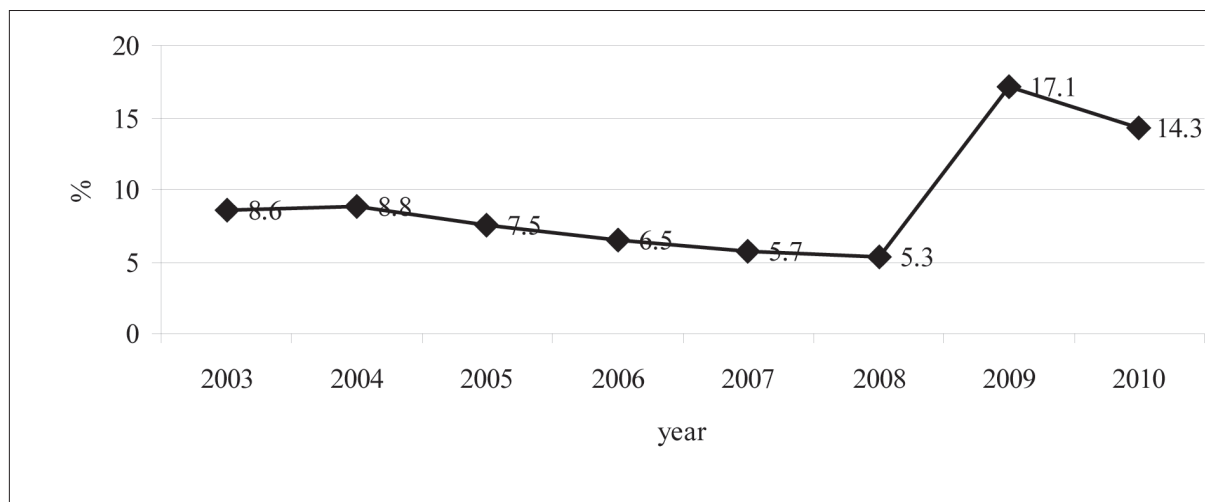


Figure 4. Registered unemployment rate in % in Latvia during the period from 2002 until 2010

Source: authors' construction according to Indxmundi data

The households' disposable income in LVL per one household member per month since 2003 tended to increase (Figure 5). The most rapid increase of the disposable income on one household member per month in LVL was observed from 2006 until 2008, when the GDP per capita increased and there was observed the lowest unemployment rate. Important part of households' disposable income was formed by employment income – more than 70 %, whereas during the economic recession period the proportion of employment income decreased for 65 % of the total disposable income on one household member per month. More and more importance in the households' budget obtained transfers, mainly social transfers.

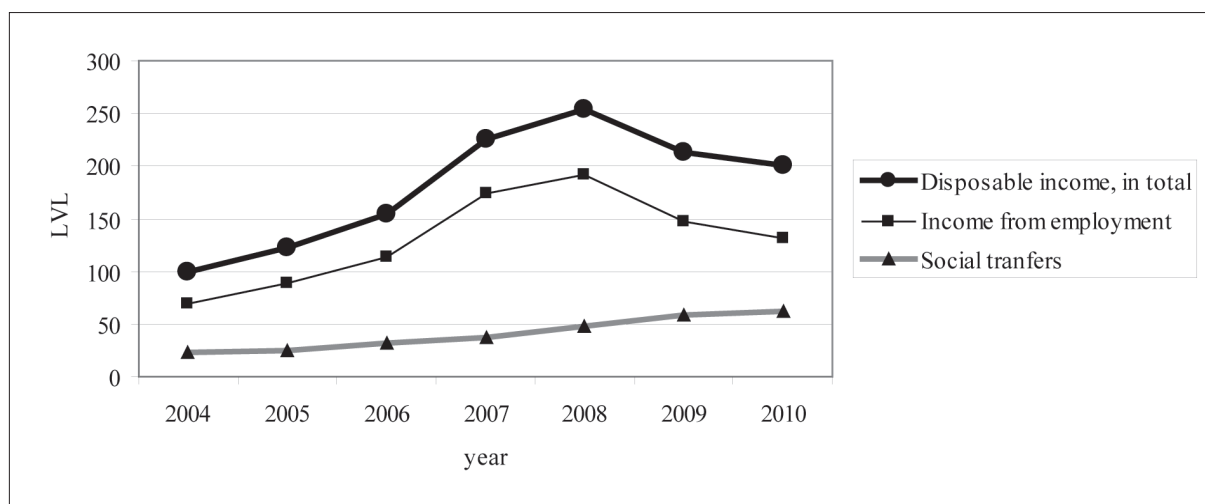


Figure 5. Households' disposable income, the composition of average income on one household member per month in LVL, in the period from 2003 to 2010

Source: Households' budget survey data of the CSB of the Republic of Latvia

Credit liabilities are a serious burden for households' budget (Voinea, Filip, 2011: 14) Alongside with increase in economic activity, in Latvia there was observed a tendency to take credits, mainly mortgage loans (according to SEB bank data, almost 80 % of credit portfolio is made up by mortgage loans), which caused a rapid increase in households' liabilities (Figure 6). During the economic recession period the tendency to take credits declined, and for households it was important to cover the existing loans.

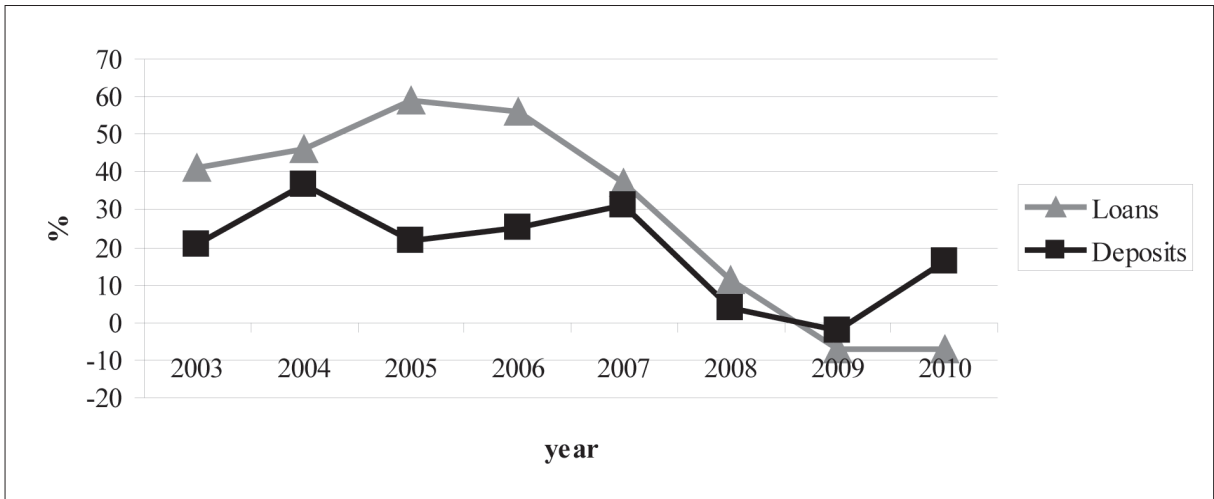


Figure 6. The banking sector loans and deposits received in Latvia during the period from 2003 to 2010, changes in percentage points over the previous year

Source: authors' construction according to data of banks' activity survey prepared by Association of Latvian Commercial Banks

The Figure 6 suggests that households react to the economic situation in the country and consequently change their consumption habits.

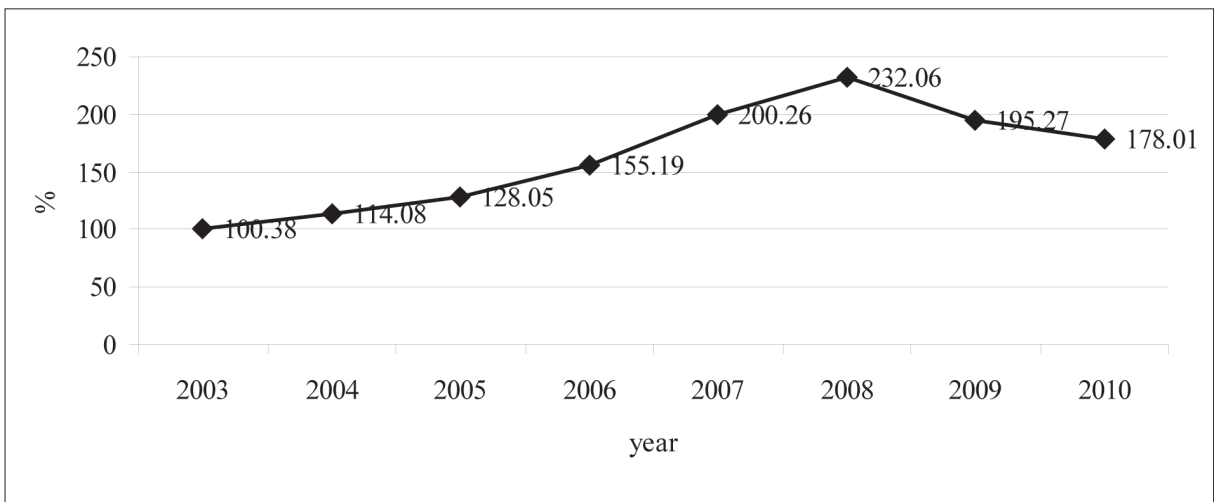


Figure 7. Household consumption expenditure on one household member per month in LVL in the period from 2003 to 2010

Source: authors' construction according to the data of CSB of the Republic of Latvia

Respectively, during the economic growth period they increase their consumption expenditure on one household member per month, and during the economic recession period decrease consumption expenditure amount on one household member.

3. Households' consumption behaviour changes under conditions of deterioration of consumption quality

In order to identify the changes in households' behaviour under conditions of economy recession, the households' survey was performed in March of 2011 (124 respondents) and 2012 (122 respondents) using a non-probability sample with accessibility or authenticity method. The main research results are as follows:

- half of the surveyed respondents admitted that the recession has seriously affected their consumption habits, 1/3 of the respondents had a neutral assessment, more than 1/10 of the respondents claimed that their consumption expenditure have been reduced insignificantly or very insignificantly;
- the respondents claimed that in scope of their shopping habits they have started to assess advertisement materials more critically – in 2011 little more than half of the respondents denied the influence of advertisements on their purchases, however in 2012 respondents were less explicit;
- during the economic recession period, as the most important criteria that are considered before making a purchase, were mentioned “practical considerations”, which suggests that the respondents were concentrating on the “Price” and “Quality”, which all in all emphasize the retention of the price dominance;
- the respondents more dramatically feel price changes in those consumption expenditure groups which make up their major expenditure;
- respondents most often reduce consumption expenditure on secondary consumption expenditure groups – “Clothing and footwear”, “Recreation and culture”, “Restaurants, cafes, hotels”;
- the comparison of the authors' performed survey data in 2011 with the authors' performed survey data in 2012 does not indicate important and significant differences. This could be explained by the fact that positive economic growth results on the households' level materialize in a longer time period. As the result, households' consumption still remains passive and cautious to changes in their consumption model.

Conclusions

1. The consumption reflects the result of important sustainable development economic and social dimensions' indicators interaction, which is determined by characteristics of the particular economic cycle phase.
2. The households' expenditure amount during the growth and recession phases of economic cycle are seriously influenced by such factors of economic and social dimensions as GDP per capita, unemployment level, credits, disposable income and salary.
3. The households' expenditure proportion connected with satisfaction of urgent primary needs for food, dwelling and transport is considerable during the economic growth and recession phases, and it reduces the expected benefit in the aspect of social dimension of sustainable development.
4. In the overall structure of households' expenditure, the proportion of consumption expenditure in different consumption groups correlate differently with the changes of households' welfare level.
5. Households tend to adjust downwards consumption expenditure related to satisfaction of social and self-development needs, which is inconsistent with provision and advancement of sustainable development.
6. Alongside with the reduction of consumption expenditure amount, it is important for households to obtain the largest possible total utility for every spent monetary unit. Therefore, the requirements regarding the quality of goods and services increase.
7. During the economic recession period, functional consumption type prevails. Under such conditions, it is necessary for marketers to have a clear market position, precise marketing communication and rational explanation to persuade a customer to make a purchase.

Proposals

1. In order to enhance households to manage effectively all their disposable income and to them subordinated consumption expenditure under reduction conditions, it is necessary to provide consumers with training possibilities on financial management at the national level.
2. To ensure the welfare dominance, which is characteristic to sustainable development, it is necessary for households to make savings.
3. In the context of sustainable development, it is necessary in households' consumption expenditure structure to increase the proportion of expenditure allocated for education and health.
4. In order to ensure the reduction of proportion of food expenditure in the overall households' consumption structure, which is one of the country's welfare level indicators, for policy markers it is advisable to consider the issue on the reduction of VAT rate on food products.

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LATVIJOS NAMŪ ŪKIŅU IŠLAIDŪ VARTOJIMO ANALIZĒ DARNAUS VYSTYMOŠI KONTEKSTĒ

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Santrauka

Remdamiesi kritine Latvijos namų ūkių vartojimo išlaidų struktūros 2003–2010 m. analize, autoriai nustatė pagrindines pokyčių tendencijas ir apibūdino pagrindinius makroekonominius rodiklius, kurie turėjo

Ītakos vairojimo struktūrai skirtingose ekonomino ciklo fazēs. Autoriai pritaikē ekonometrinius metodus ir apibūdino koreliacijā tarp tam tikrų išlaidų grupių santykio ir visų namų ūkio išlaidų. Analizē padējo nustatyti, kurios vairojimo išlaidų grupēs yra svarbiausios užtikrinant gerovēs lygį, šiuo požiūriu nagrinētas ir E. Engelio reguliarumas. Atlikta analizē padējo nustatyti pagrindines vartotojų elgsenos pokyčių ekonominės recesijos metu kryptis ir pateikti pasiūlymų, kaip tobulinti vairojimo, svarbaus šalies gerovēs ir darnaus vystymosi, rodiklį.

PAGRINDINIAI ŽODŽIAI: *Latvijos namų ūkiai, vairojimo išlaidos, gerovēs lygis.*

JEL KODAI: E21, E31, H31