ECONOMIC DOWNTURN AND THE IMPROVEMENT OF MONETARY POVERTY AND SOCIAL EXCLUSION STATISTICS SYSTEM[1]

Edmunds Vaskis

Social Statistics Department, Central Statistical Bureau of Latvia

Address: 1 Lacplesa Str, Riga LV-1301, Republic of Latvia. E-mail. Edmunds.Vaskis@csb.gov.lv

Zaiga Priede

Employment Statistics Section, Central Statistical Bureau of Latvia

Address: 1 Lacplesa Str, Riga LV-1301, Republic of Latvia. E-mail. Zaiga.Priede@csb.gov.lv

Abstract. The economic crisis has also challenged statistics. This article deals with the consequences of the economic crisis for social statistics, and particularly monetary poverty indicators, which in this situation have shown certain signs of weakness. The authors will discuss possible alternatives for the calculation of these indicators, as well as present the experience of Statistics Latvia when reacting to the challenges raised by the economic crisis in the field of social statistics.

Keywords: economic crisis, social statistics, monetary poverty measures.

1. Introduction

The economic crisis, which at the end of 2008 started in the USA and later slowed down economies in other countries, has lead to a situation where Latvia is witnessing the most significant economic recession on a geospatial scale. The Gross Domestic Product of Latvia decreased by 22% compared to the period before crisis (2009 compared to 2007), moreover, 2009 showed a particularly sharp decrease, the annual drop-down amounting to 18%.

The crisis has inevitably led to a reduction of the population welfare level. The period of fairly rapid but stable growth of income level was interrupted in 2009, when in comparison with 2008 monthly household disposable income per household member diminished by 16% (LVL 40), which is below the income level in 2007 (see Table 1).

Table 1. Changes of household disposable income, 2004–2009 *(LVL per household member per month)*

	All households	Urban	Rural
2004	100	112	75
2005	122	140	88
2006	154	171	118
2007	226	250	173
2008	253	277	199
2009	**214**	**234**	**169**

Source: EU-SILC.

---

[1] This article describes conclusions made by its authors. The authors do not write as representatives of the CSB of Latvia nor or of any governmental organization. They freely express their own opinions, which are based on their professional experience and competence in the field of social statistics.

Due to high unemployment among the active population, the share of households with wages and salaries as main source of income has reduced from 66% in 2008 to 59% in 2009. In the meantime, the share of households with social transfers as the main source of income has increased from 29% to 37%.

The aim of this article is to evaluate experience in the practical use of monetary poverty and material deprivation indicators under the rather specific circumstances of the economic crisis, to assess their unusual behaviour, and to develop ideas for the improvement of the system of these indicators, as well as to describe the experience gained when supplementing the current set of statistical tools with a new survey designed to monitor the consequences of the economic crisis.

2. Crisis and indicator process

The Beyond GDP initiative has generated many useful discussions about the best indicators, and they still do continue. In extraordinary circumstances like the latest economic crisis, in order to understand the essence of the problem, the need for specific indicators, in addition to existing ones, is even more obvious.

What should these indicators be? They should meet at least the following conditions:

1. The indicators should provide data users with summarised information on the situation in society and the trend of its changes;

2. The indicators should be easily understandable to everyone, including non-specialists;

3. The indicators should be as timely as possible.

Data users often are asking for simple and as wide-ranging data as possible – the so called composite indicators. To illustrate, the Human Development Index (HDI) may be mentioned as the most popular one. Also the Canadian Index of Wellbeing [1] and Robert Prescott-Allen's Human Well-being Index [2] may be referred to.

In the calculation of composite indicators the choice of weights is the most significant problem, and it still remains the most important source for uncertainty and debate. The next problem is how to select certain individual indicators that are scientifically relevant and empirically computable, and most important of all, politically relevant. Moreover, in a compact form these indicators at best provide information on situation in general, not on specific aspects of life quality.

Are these indicators useful under circumstances of economic crisis? In our opinion – no, because they react rather late and are mainly used for global comparisons. One of the HDI developers, Amartya Sen [3], has admitted that this index has been very useful to observe progress in the poorest economies of the world, but that in other situations this indicator is less relevant.

Our opinion is that current social indicator system should not be substituted with one or several composite indicators, because the crisis has many various and different manifestations and aspects which can not be perceived trough composite indicators, especially in the short term. Nevertheless, it does not exclude the calculation of composite indicators by scientists, and we should agree with the page 59 of the Report of the Commission on the Measurement of Economic Performance and Social Progress, currently known as Stiglitz-Sen-Fitoussi Commission Report [4]:

Recommendation 5: *Statistical offices should provide the information needed to aggregate across quality-of-life dimensions, allowing the construction of different scalar indexes.*

We should also agree with the quote mentioned in the same Report that, "*While assessing quality-of-life requires a plurality of indicators,…*".

The indicator process, especially under crisis conditions, cannot stop, and there are a lot of things to do to improve the indicators. We would like to focus on one widely-known indicator – the at-risk-of-poverty rate. This index is based on 60% of the national median of equivalent disposable income.

3. What is the message of the monetary poverty indicators of Latvia?

The economic crisis challenges not only society as whole, but also statistics. The main question is – do the current indicators reflect the manifestations of the crisis correctly and understandably?

A social indicator, which the at-risk-of-poverty rate is without a doubt, should give decision-makers, journalists and the general public an idea about the state of social inclusion or changes to it, as well as allowing comparisons. Is this always the case, and what is the impact on this indicator caused by the economic crisis in Latvia?

The Latvia Overarching Indicators portfolio (previously known as Laeken indicators) in the crisis situation has shown itself from its less positive side. The at-risk-of-poverty threshold and the at-risk-of-poverty rate derived from it, are both relative indicators, which depend on the average income level in households. Due to the reduction of overall income level in the country the at-risk-of-poverty threshold in 2009 has decreased (see Figure 1).
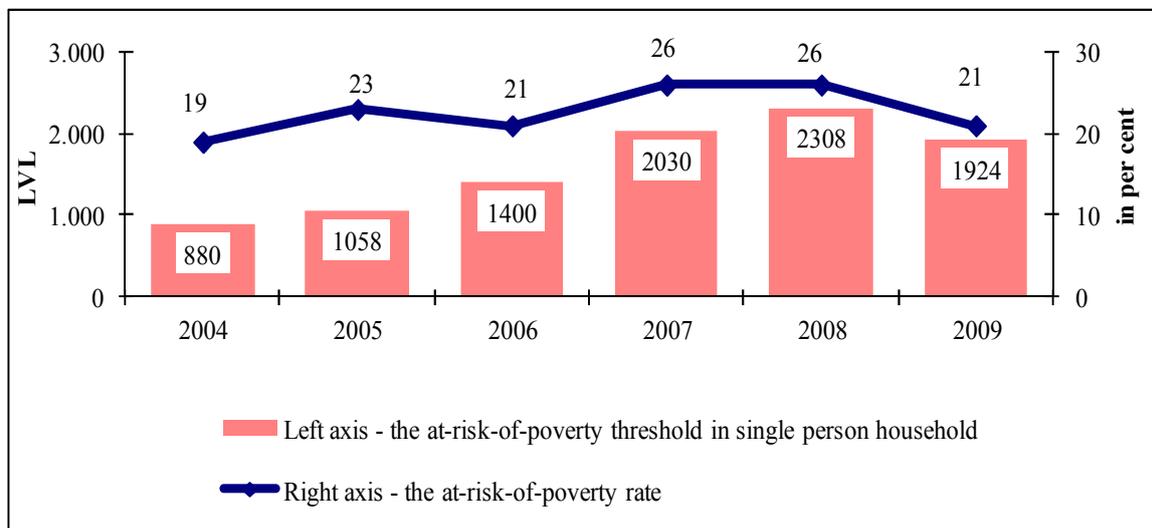

Source: EU-SILC.

Figure 1. At-risk-of-poverty threshold and at-risk-of-poverty rate after social transfers, 2004–2009

Poverty indicators from EU-SILC (The European Union Statistics on Income and Living Conditions) show a paradox – the lower the income of the population, the smaller the number of the population under the at-risk-of-poverty threshold. We have to admit that society has became equally less wealthy, and under such conditions along with the reduction of the average income level, the relative indicator – the at-risk-of-poverty rate – has diminished.

According to this logic, in 2009 Latvia has successfully met the aim set for the Europe 2020 strategy headline indicator *persons at-risk-of-poverty after social transfers.* Over one year the at-risk-of-poverty rate has decreased from 26% (EU-SILC 2009) to 21% (EU-SILC 2010). In principle, this is a drawback of the indicator, because in its essence it does not cover the situation of an economic recession. Thus, a question arises - is it a positive signal, and is the signal correct? From a mathematical and statistical point of view it certainly is correct, but to the question - is it positive, we will try to answer henceforth.

Will the scenario of Latvia also occur in other Member States that undergo an economic recession on a corresponding scale? This is a topical question. In Estonia this scenario can already also be observed (EU-SILC 2010) [5].

The most important point about the at-risk-of-poverty rate is not its value but the trend and the message it gives to the society, policy makers and data users. This indicator should not provide society with such contradictory information. Moreover, the real situation is not ambiguous at all and it must be taken into account that ***the at-risk-of-poverty rate anchored at a fixed moment in time (2005)*** shows increase of the risk of poverty (see Figure 2). And also, such a trend is captured by any other absolute risk of poverty threshold, e.g., minimum wages set in the country.
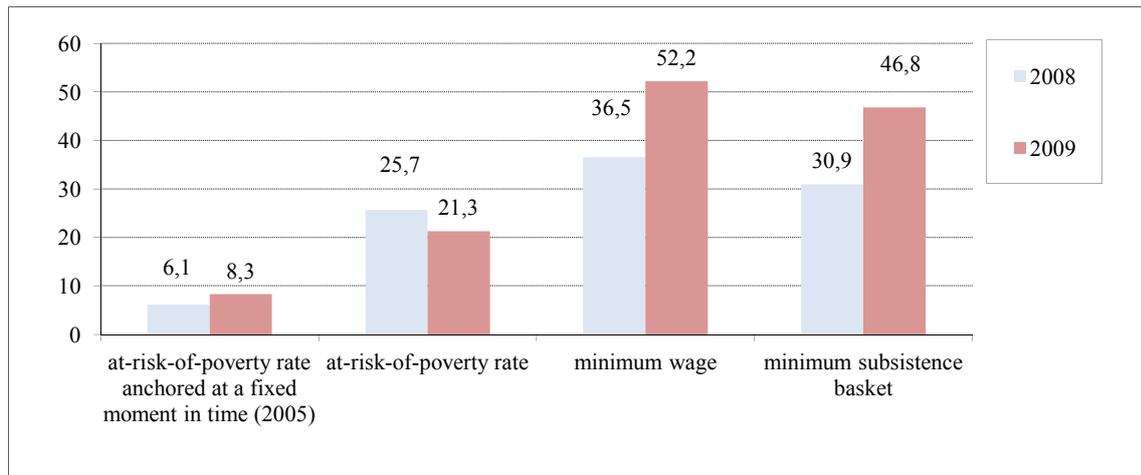
Source: CSB of Latvia.

Figure 2. Population below different alternative poverty thresholds (as percantage of population)

4. To continue or to change?

Is it possible to put up with this situation, and have we never thought of unpredictable behaviour in such an indicator? We have had doubts about the risks of using of this indicator previously. Already in 2005 at the Conference of the Luxembourg Presidency of the Council the EU *"Taking Forward the EU Social Inclusion Process"* Latvia supported the opinion which afterwards was defined in following recommendation:

"The EU Social Inclusion Process should continue with its existing Primary poverty risk indicators, based on country-specific poverty thresholds; but the Commission should use the advent of EU-SILC for EU-25 to complement these indicators with a background "2005 Lisbon mid-term social cohesion statistic", based on the median income in the EU-25 as a whole. It would not have the status of an indicator…."… [6]

This recommendation was actively supported by one of the authors of this article [7]. But due to the position of Eurostat it remained only a recommendation, followed by no action.

In fact, this indicator is available, and in 2007 for Latvia it exceeds 70% [8]. Will policy makers like it? The question is still open, but in the case of Latvia it undeniably will show a different, more precise trend. And, in our opinion, this gives an answer to the question – is the ***at-risk-of-poverty rate*** an appropriate indicator for the current economic situation?

Opinion on the use of the at-risk-of-poverty rate in the specific situation of Latvia was expressed also in the paper "**Statistics – essential tool for multidimensional analysis in measurements of social processes under crisis**" presented at the 96th DGINS Conference in Sofia, 30 December 2010 [9].

Currently Eurostat considers that one of the Europe 2020 headline indicators, *population at-risk-of-poverty or exclusion,* is the solution for the challenges of the economic crisis. This indicator is a kind of composite indicator formed from the following indicators:

(a) Persons living in households with very low work intensity;

(b) Persons at-risk-of-poverty after social transfers;

(c) Severely materially deprived persons.

This is where we have to raise several objections, because for one of these indicators (c) the reference year is survey year, but for the other two (a and b) it is the previous calendar year. Hence, this composite indicator simply cannot be associated with a single reference period.

What trend does this indicator show? (see Figure 3 below)

Source: Eurostat.

Figure 3. Population at-risk-of-poverty or exclusion (percentage)

The trend of this indicator leads to contradictory conclusions about the influence of the economic crisis on the households of Latvia. In our opinion, it does not meet expectations. Eurostat obviously should start a discussion on the elaboration of the Overarching Indicators portfolio based on EU-SILC and adopted under the Open Method of Coordination (OMC) with additional indicators, and the at-risk-of-poverty rate based on the median income in the EU-27 as a whole could be one such indicator.

5. Several conceptual issues

The issue of the minimum income standard or level deemed necessary for a person to maintain their dignity is not only a matter of statistical theory, but also of ethics and morality. In 2009, when economic crisis had its peak in Latvia, the government did not have even a notion of decreasing minimum monthly wages or social benefits for households. Unfortunately, the trend of the at-risk-of-poverty threshold and the derived at-risk-of-poverty rate would give a different message.

When state budget expenditure is being reduced in the short and medium terms, wages and salaries are decreasing and unemployment is growing, the minimum income standard based on 60% of equivalent disposable income median is going to diminish. Consequently a question of conceptual importance arises – is it correct to use such a relative indicator in these circumstances? In case of the worst economic scenario, with a reduction of population welfare, the at-risk-of-poverty rate may continuously decrease.

We believe that in order to avoid a downward trend triggered by the economic recession it is worth discussing the idea of freezing the at-risk-of-poverty threshold until its value exceeds the pre-crisis level. If we do not want to compromise the at-risk-of-poverty threshold, allowing this minimum income standard to be degraded by the economic crisis, this would be a logical decision following which the poverty trend would reflect the current socio-economic situation. Freezing the at-risk-of-poverty threshold at its 2008 value would ensure that the at-risk-of-poverty rate in Latvia in 2009 would comprise 31%, and it is 10 percentage points more than the official at-risk-of-poverty rate based on 60% of equivalent disposable income median in 2009.

When adopting a resolution **on the role of minimum income in combating poverty and promoting an inclusive society in Europe** (2010/2039(INI)) the European Parliament on October 20, 2010 initiated a discussion on the minimum income level deemed necessary for a person. Paragraph 6 of the Resolution highlights the need for action at the Member State level with a view to establishing a threshold for minimum income, based on relevant indicators, that will guarantee social-economic cohesion, reduce the risk of uneven levels of remuneration for the same activities and lower the risk of having poor populations throughout the European Union, and calls for stronger recommendations *from*

the European Union regarding these types of actions [10]. Although this resolution does not give specific guidelines for statisticians regarding the development of alternatives for the at-risk-of-poverty threshold, perhaps it is time to begin a discussion on the use of absolute poverty thresholds to estimate the risk of poverty.

A question may arise as to why such efforts are necessary, because the economic crisis may soon come to an end. Unfortunately, currently no one can tell when it will be over, and the ebb of the global crisis, envisaged by the international financial organisations, is possible. Also alternative indicators of poverty statistics, even in circumstances when the economic crisis is over, can give better insight into social problems and help to develop a better strategy to combat poverty.

6. New information about ongoing social processes under crisis conditions

Are current statistical tools sufficient to characterise the economic crisis and its influence on households? Under the conditions of the downturn the situation is changing rather dynamically, and statistics has to react to these challenges adequately. It is rather hard to implement it within the framework of the existing surveys (EU-SILC, Household Budget Survey), because society is able to access the data relatively late. To provide timely statistics the Labour Force Survey (LFS) was selected as a platform in Latvia. The LFS was chosen not only because it is a quarterly survey, but mainly because its effective sample during a year comprises more than 14 thousand households, and this allows us to cover specific groups of households, including social risk households.

As a result, within the framework of the social safety network strategy implementation in cooperation with the World Bank, a survey on changes in household welfare under the influence of the economic crisis was started. The aim of this survey is to understand the problems which poorer households have to face. Four press releases on the results of survey 2010 were published.

The topics of the survey on changes in household welfare under the influence of the economic crisis (Crisis Module) are as follows:

(a) Changes experienced by households under the circumstances of the current economic situation;

(b) Impact of the decline in income or other economic difficulties to households' economic situations;

(c) Households' financial situations;

(d) Coping strategy to deal with a decline in income or other economic difficulties;

(e) Output from Government Safety Nets and Social Insurance;

(f) Informal Transfers and Support.

The survey data show that the rate of economic crisis consequence management in households of the risk group (households receiving a guaranteed minimum income benefit[2] or households in which one or more members are doing jobs offered by local governments and receiving 100 LVL[3]) differs from other households (see Figures 4 and 5).

---

[2] Guaranteed minimum income benefit is one of the most significant types of local government social assistance for the population with the lowest income or without any income at all. The aim of this benefit is to ensure material support for the poorest residents of local government areas.

[3] Project co-funded by the European Social Fund, implementation period – September 2009–December 2011 (active labour market policy programme for the crisis period). The employment subsidy programme engages those registered unemployed who do not receive unemployment benefit and are capable of physical work.
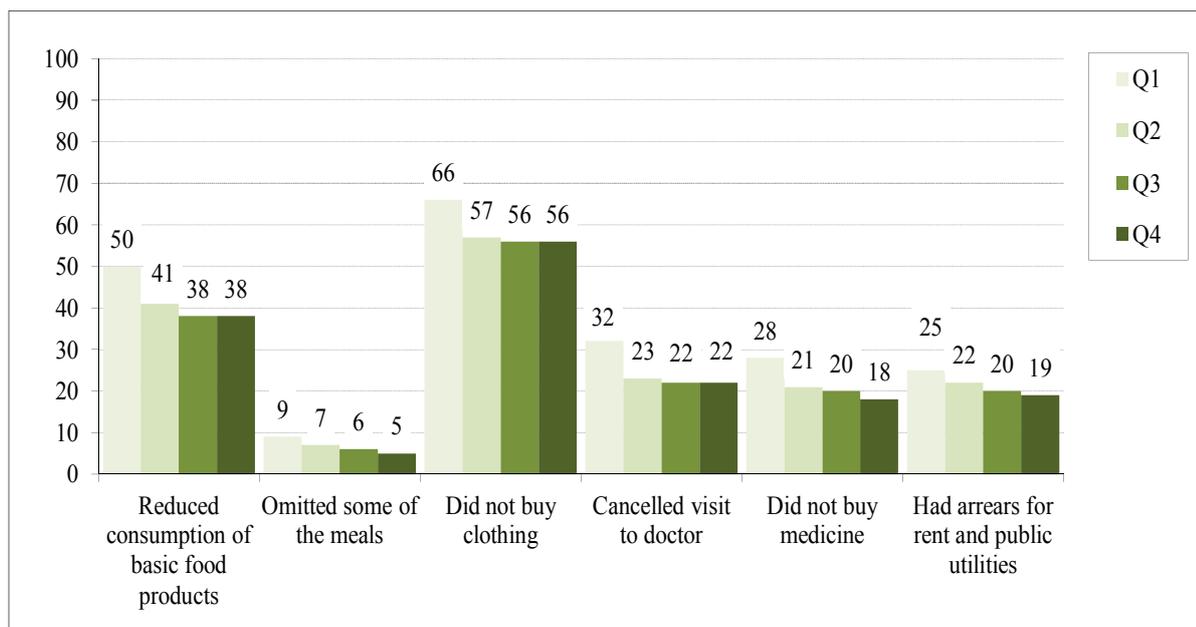
Source: Crisis Module to LFS

Figure 4. All households. Measures taken to overcome the consequences of the crisis, by quarter, 2010
(as per cent of the total number of households)
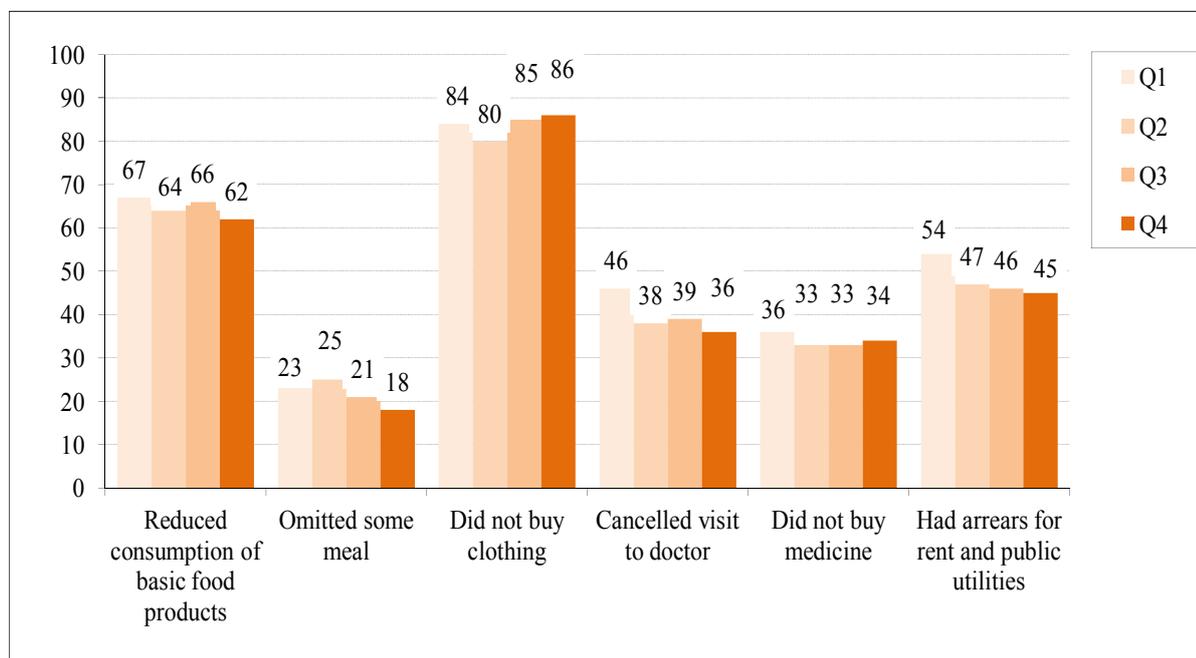
Source: Crisis Module to LFS.

Figure 5. Poor households. Measures taken to overcome the consequences of the crisis, by quarter, 2010
(per cent of the total number of households of the respective groups)

Since the 1st quarter of 2010 the situation in society at large is improving. Nevertheless, it is still tense in households of the risk group where progress is rather insignificant. Purchase of clothing presents the greatest difficulties

in households of the risk group. Moreover, they have arrears for public utilities and rent, and in most cases they have to reduce their consumption of basic food products.

Currently the Central Statistical Bureau is planning to continue these surveys until the end of 2011.

7. Conclusions

The economic crisis has noticeably influenced the national economy of Latvia and society at large, and it has challenged the statistics of Latvia. It is rather difficult to give a positive answer to the question - has system of monetary poverty indicators reflected the ongoing social processes adequately? Although from a statistical point of view the data have been calculated correctly, it is difficult to explain the results to data users. It seems that the developers of these indicators have not envisaged the sharp income reduction under the specific circumstances of the economic crisis. It is time discuss the improvement of the indicator system, and the first topic deserving consideration could be the introduction of the at-risk-of-poverty rate based on the average at-risk-of-poverty threshold of the EU.

Reacting to the manifestations of the economic crisis, the statistics should improve the tools for statistical observations, introducing ad hoc modules which would monitor specific manifestations of the crisis in groups at risk of poverty and social exclusion.

References

1. L. Osberg, A. Sharpe. Internet 1998. An Index of Economic Well-Being for Canada.
   http://www.hrsdc.gc.ca/eng/cs/sp/hrsd/prc/publications/research/1998-000129/r-99-3e.pdf.
2. M. Cooke. Internet 2001. The First Nations Community Well-Being Index (CWB): A Conceptual Review.
   http://dsp-psd.pwgsc.gc.ca/Collection/R2-400-2005E.pdf.
3. J. Gertner. 2010. "The rise and fall of GDP", New York Times, 10 May 2010.
   http://www.nytimes.com/2010/05/16/magazine/16GDP-t.html?_r=1&scp=2&sq=gdp&st=cse.
4. J. E. Stiglitz, A. Sen,. J-P. Fitoussi. 2009. Report of the Commission on the Measurement of Economic Performance and Social Progress. http://www.stiglitz-sen-fitoussi.fr/index.htm.
5. Statistics Estonia. Internet 2011. Press release: Pensions and benefits influenced significantly poverty rates in 2009.
   http://www.stat.ee/49398.
6. A. B. Atkinson, B. Cantillion, E. Marlier and B. Nolan. 2005. An Independent Report commissioned by the Luxembourg Presidency of the Council of the European "Taking Forward the EU Social Inclusion Process".
   http://www.esri.ie/pdf/BKMNEXT067_Taking Forward.pdf.
7. E. Vaskis. Internet 2005. Luxembourg Presidency Conference on "Taking Forward the EU Social Inclusion Process". Comments on Chapter 5: EU Indicators for Poverty and Social Exclusion.
   http://www.ceps.lu/actualites/details/event_28/attachments/Taking_forward_the_EU_Social_Inclusion_Process-SessionC(E_Vaskis).pdf.
8. A. Fusco, A-C. Guio, E. Marlier. 2010. "Income Poverty and Material Deprivation in European Countries", 2010 EU-SILC International Conference (Warsaw, 25 & 26 March)
9. *A. Zigure, E. Vaskis. 2010. Statistics - essential tool for multidimensional analysis in measurements of social processes under crisis. A paper prepared for 96th DGINS conference.* http://www.dgins-sofia2010.eu/pdocs/DGINS-SessionIII-LV.pdf.
10. European Parliament resolution of 20 October 2010 on the role of minimum income in combating poverty and promoting an inclusive society in Europe (2010/2039(INI)).

EKONOMIKOS NUOSMUKIS IR PINIGINIO SKURDO BEI SOCIALINĖS ATSKIRTIES STATISTIKOS SISTEMOS TOBULINIMAS

Edmunds Vaskis, Zaiga Priede

Santrauka. Ekonominė krizė meta iššūkį statistikai. Straipsnyje nagrinėjamas ekonominės krizės poveikis socialinei statistikai, ypatingas dėmesys skiriamas piniginiams skurdo rodikliams, kurie šioje situacijoje rodo silpnėjimo požymius. Autoriai aptaria galimas šių rodiklių skaičiavimo alternatyvas, taip pat pristato Latvijos statistikos patirtį, reaguojant į ekonominės krizės sukeltus sunkumus socialinės statistikos sričiai.

Reikšminiai žodžiai: ekonominė krizė, socialinė statistika, piniginiai skurdo matai.