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**Poverty Measurement in Latvia
Practical Experience Gained during the Crisis**

Prepared by the Central Statistical Bureau of Latvia ¹

Summary

The paper presents the national experience in poverty and inequality measurements in Latvia.

The analysis for measuring statistical poverty was made mainly using the European Union's survey on Income and Living Conditions (EU-SILC). In Latvia, EU-SILC has been conducted since 2005. The Central Statistical Bureau (CSB) regularly publishes indicators of monetary poverty, material deprivations, social exclusion and income inequality in accordance with the Eurostat methodologies. Public attention to these indicators increased after 2008, during the economic recession. The CSB has found that these indicators behaved strangely over this period. The trends were often quite contradictory. Due to these trends the structure of individuals at-risk-of-poverty has drastically changed.

The paper consists of three parts. Part 1 presents a brief overview of major historical trends in the poverty and inequality indicators: before, during and after the crisis. Part 2 provides an in-depth analysis of the reasons why poverty indicators demonstrate different trends in Latvia. Part 3 provides an overview of key poverty indicators at the national level and sets out future plans for using these indicators in Latvian social policies.

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I. Measuring poverty and inequality indicators in Latvia

The CSB regularly publishes indicators of monetary poverty, material deprivations, social exclusion and income inequality in accordance with the methodologies used by the Eurostat. The source of the data is the EU-SILC, which is annually conducted in Latvia starting from 2005.

In 2008-2010, Latvia faced the severest economic crisis since its independence. In 2010, gross domestic product reduced by 19.3% vs. 2007 and total employment reduced by 19.5%. Considerable deteriorations in the economy affected households' disposable income. (Figure 1).

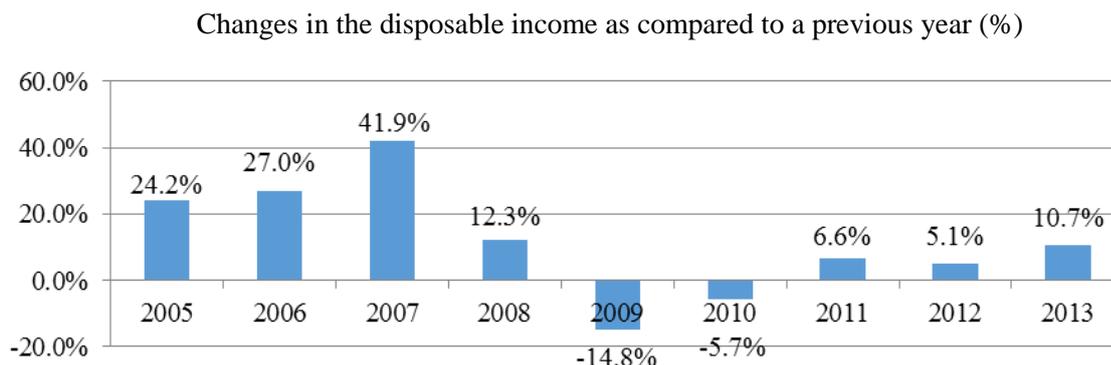


Figure 1

Due to the economic changes, which mostly affected people of working age, the structure of disposable income also changed considerably. In 2007, the share of income from employment or self-employment was on average 81.2%, and the share of social transfers was 17.7%, whereas in 2010 these shares were 67.0% and 32.4%, and after the economic situation improved in 2013, these indicators were 72.7% and 26.2% respectively.

Table 1

Structure of household disposable income (%)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total disposable income	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
income from employment	68.2	72.1	73.4	77.3	75.5	67.7	63.7	65.8	67.5	68.8
income from self-employment and business	6.8	5.3	4.6	3.9	3.3	2.6	3.3	4.5	4.1	3.9
income from property	0.9	1.3	0.6	1.0	1.1	0.7	0.3	0.7	0.8	0.9
income from transfers	25.9	23.0	22.2	19.0	21.5	30.1	34.2	30.4	29.0	27.5
..income from social transfers	23.9	21.1	21.4	17.7	20.0	28.6	32.4	28.9	27.4	26.2
..income from private transfers	2.0	1.9	0.8	1.3	1.4	1.5	1.8	1.5	1.5	1.2
other income	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
expenditures reducing disposable income	-1.8	-1.6	-0.9	-1.2	-1.4	-1.2	-1.6	-1.4	-1.4	-1.0

Income from employment, employment level and income from old age pensions are of key importance in the structure of household income structure. Figure 2 shows changes in these indicators.

Changes in average net wage, average old age pension and total employment as compared to a previous year (%)

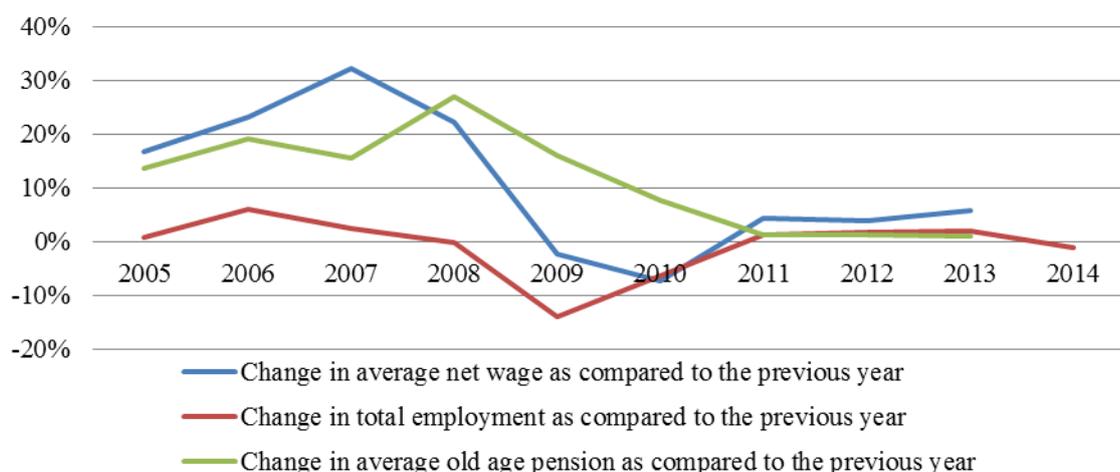


Figure 2

Prior to the economic crisis, average wage was growing faster than average old age pension. Total employment was also growing. The situation radically changed when the crisis started: average pension remained stable, whereas average wage reduced by 2.4% in 2009, and by 7.4% in 2010. Total employment considerably shrank: by 0.2% in 2008, by 13.9% in 2009, and by 6.4% in 2010. Starting from 2011, average old age pension grew approximately by 1% a year, whereas average net wage grew by 4-6% a year. Total employment was also increasing by 1-2% a year until 2013 but in 2014 total employment declined by 1%.

Changes in the disposable income and employment levels during the crisis resulted in reducing the threshold of poverty risk by 22% in 2010 as compared to 2008 (Figure 3).

Threshold of poverty risk and subsistence minimum

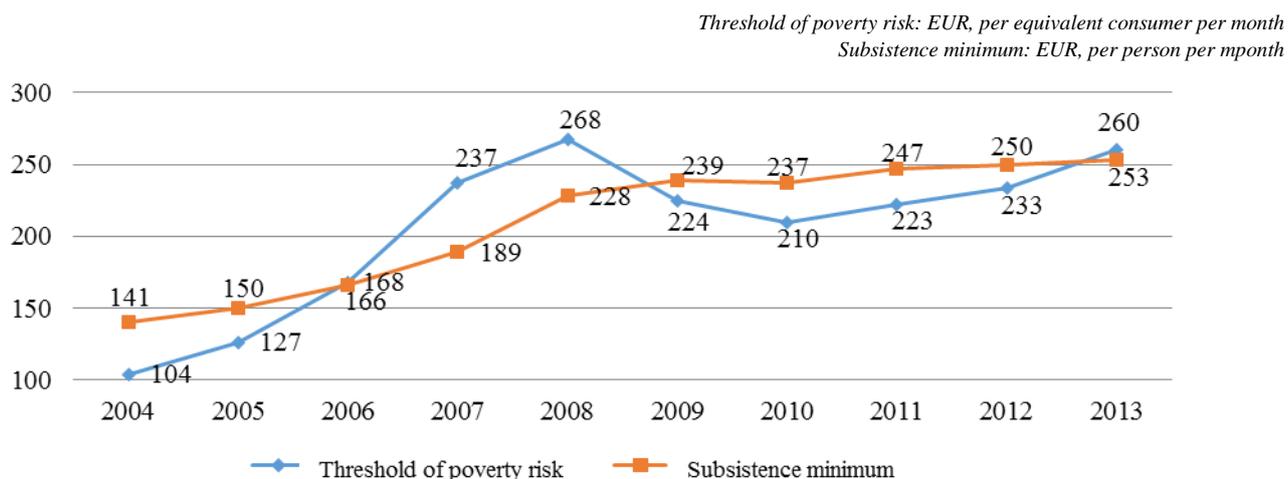


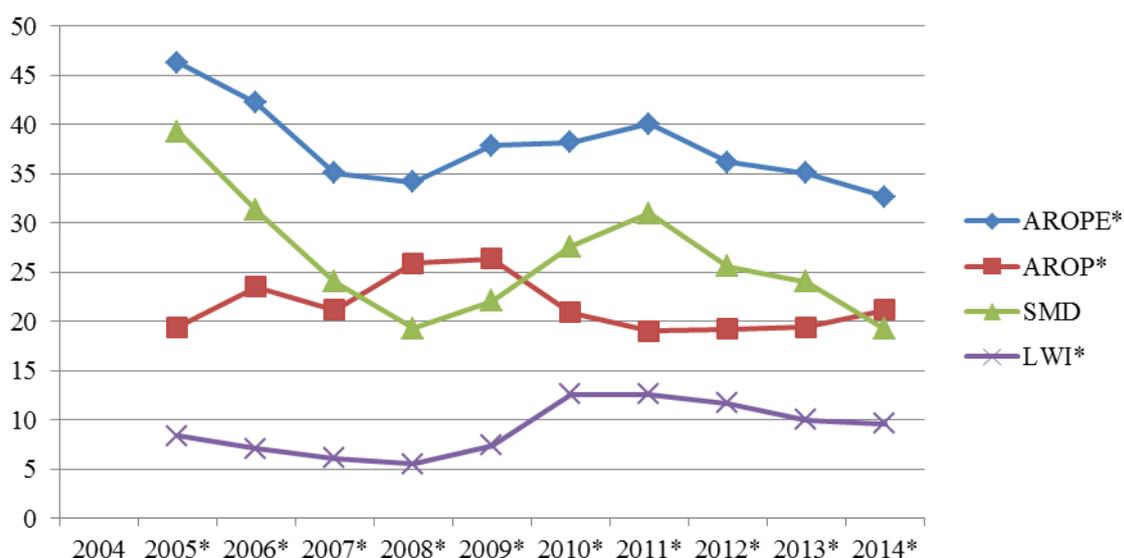
Figure 3

The situation when the poverty threshold reduced during the crisis (from €268 in 2008 down to €210 in 2010) can be explained statistically, however, these changes fail to fully demonstrate the reality as during crisis nominal material needs do not go down. This is evidenced, for instance, by the fact that even during the crisis the Latvian government didn't reduce minimum social guarantees (e.g. minimum wage and allowances). Changes in the threshold of poverty risk revealed some weaknesses of such indicator as poverty

risk. These weaknesses were understandable for CSB officials and other specialists in the area of social policies, however, they were misunderstood by general public.

Deteriorations in the economy strongly affected the indicators characterizing poverty and income inequality. Figure 4 below demonstrate changes in ‘at-risk-of-poverty and social exclusion’ (AROPE), ‘at-risk-of-poverty’ (AROP), ‘severe material deprivations’ (SMD) and ‘low work intensity’ (LWI) in the year of a survey. Importantly, determining the year to which each indicator refers is a methodological issue because dimensions characterizing AROPE, an indicator of multidimensional poverty, refer to different periods of time. SMD refers to the year when a survey was conducted whereas AROP and LWI refer to the year preceding the year of a survey, i.e. the year for which a respondent provided data required for estimating these indicators. Eurostat publishes these indicators and specifies the year of a survey, whereas the CSB publishes only SMD for the year of a survey whereas for other indicators it provides data for the year preceding the year of a survey. The CSB also publishes AROPE for the year preceding the year of a survey given that two out of three dimensions of this indicator (AROP and LWI) refer to this period.

At-risk-of-poverty or social exclusion (AROPE), at-risk-of-poverty (AROP), severe material deprivations (SMD) and low work intensity (LWI) [%]



* AROP and LWI refer to a previous year; AROPE partially refer to a previous year

Figure 4

As Figure 4 and Table 2 demonstrate, the indicators of AROP and SMD have opposite trends in all the years apart from 2006 and 2011 (in Figure 4, AROP values for 2007 and 2012 are 2006 and 2011 respectively). However, one should take into account that these differences are accumulated in AROPE and the behaviour of this indicator correspond to the macroeconomic situation in the country which emphasizes its importance as multidimensional poverty indicator.

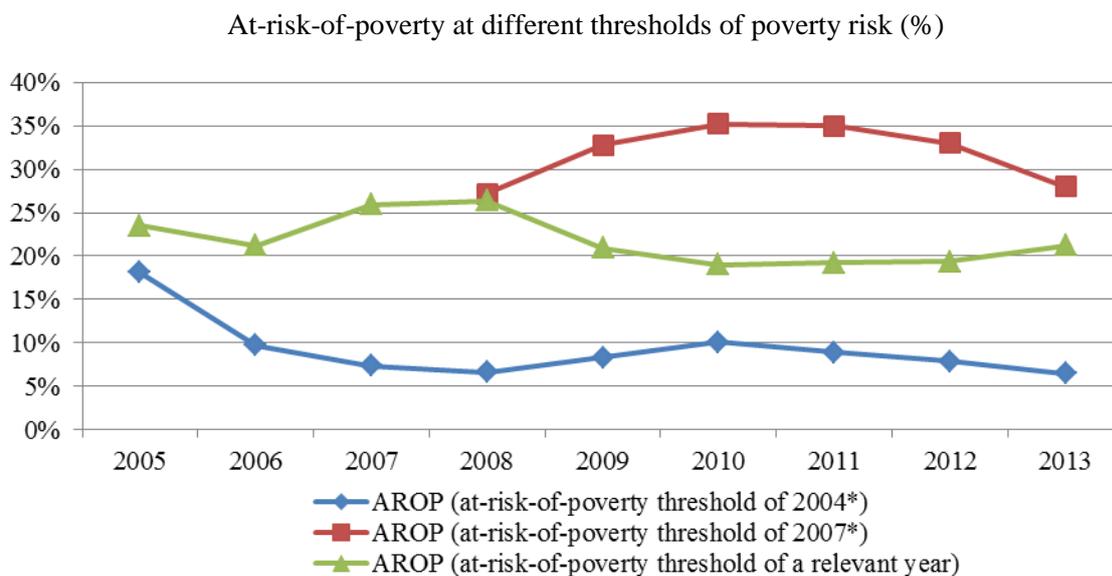
Table 2

Changes in AROP and SMD

percentage points as compared to a previous year

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
SMD change		-8.0	-7.3	-4.7	2.8	5.5	3.4	-5.4	-1.6	-4.8
AROP change	4.1	-2.3	4.7	0.5	-5.5	-1.9	0.2	0.2	1.8	

Considering at-risk-of-poverty and at-risk-of-poverty estimated at the threshold of poverty risk of 2004 or 2007, we should note that they also have quite contradictory trends (Figure 5).



* adjusted for inflation and PPP

Figure 5

The CSB does not deem necessary to focus on a fixed threshold of risk of poverty, but it should be noted that during the crisis poverty risks estimated against fixed thresholds provided more accurate trends, e.g. as compared with administrative data on poor people.

II. Analysis of trends in poverty and income inequality indicators

At-risk-of-poverty indicator strongly correlates to gross domestic product (GDP): with higher GDP there are more people who are at-risk-of-poverty and vice versa, with lower GDP there are less people at-risk-of-poverty (Figure 6).

Changes in GDP and at-risk-of-poverty as compared to 2004

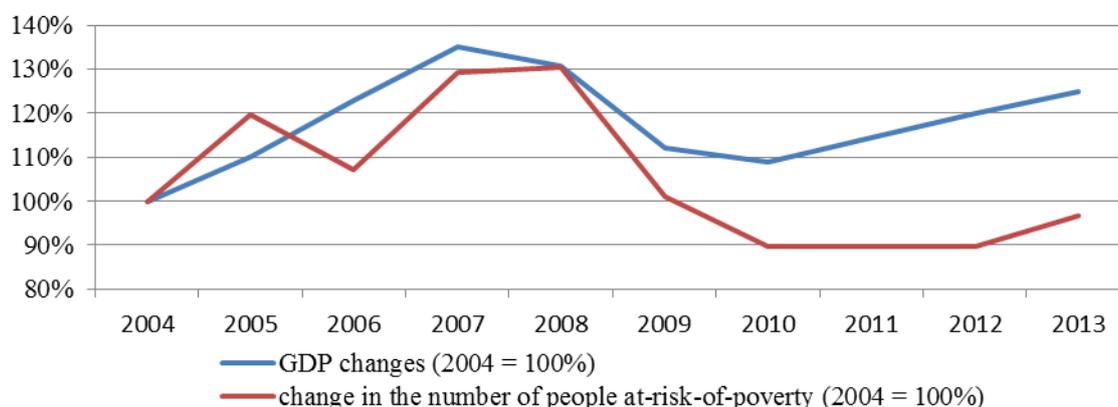


Figure 6

One should note that AROP is strongly affected by changes in income levels of one group as compared to changes in income levels of other groups. As there are groups of people with guaranteed income (e.g. income from pensions) and non-guaranteed income (e.g. wage), at the time when non-guaranteed income grows faster than guaranteed income, the group of people with guaranteed income is more exposed to the risk of

relative poverty, and vice versa, at the time when guaranteed income grows (or is not reduced) and non-guaranteed income goes down (e.g. due to mass dismissals and lower wages), the group of people with guaranteed income are less exposed to the risk of relative poverty. This pattern is most evident in the analysis of changes in the poverty risks in the age group of 65+ (Table 3).

Table 3

Poverty risks for different age groups (%)

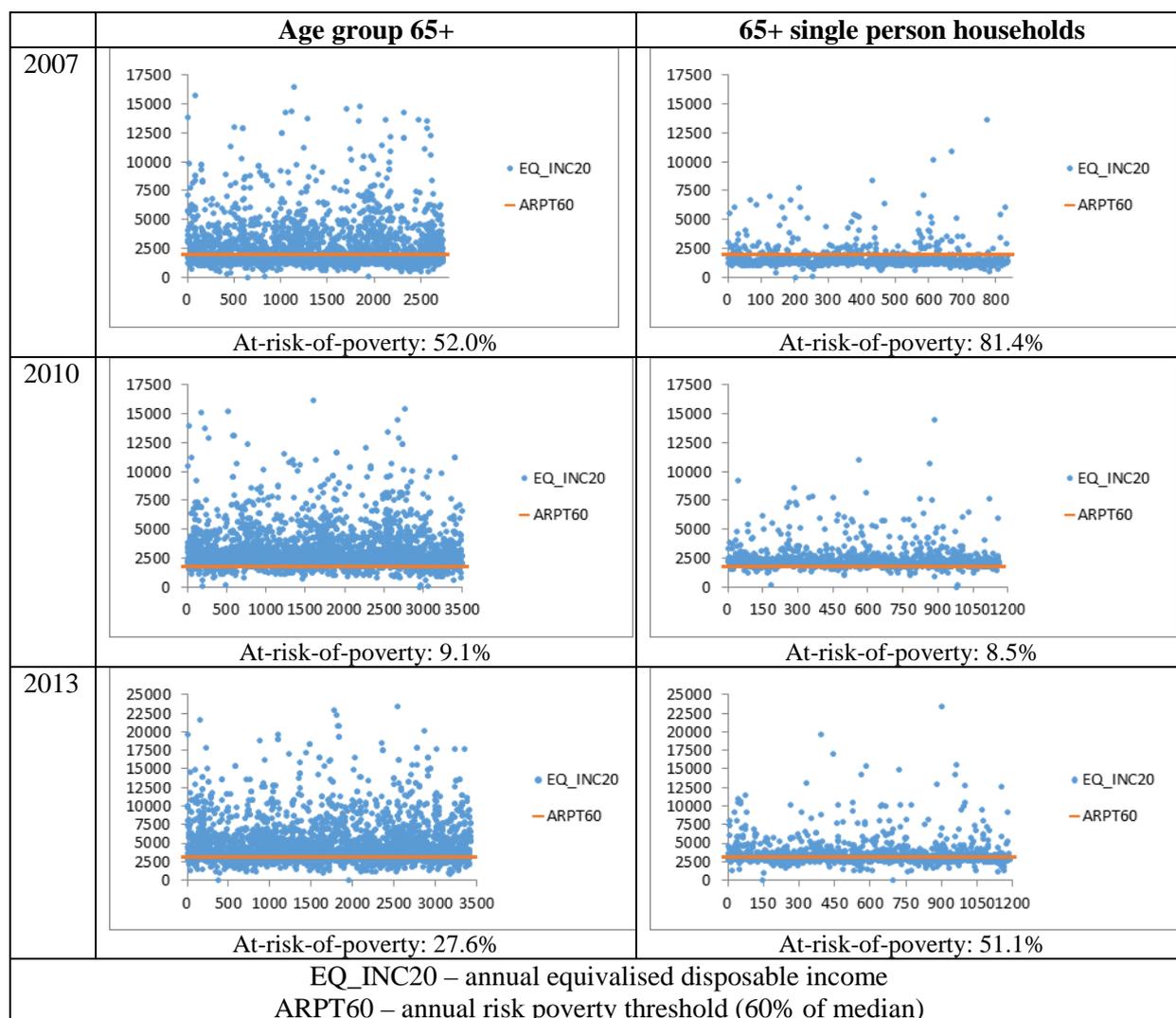
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Latvia, total	19.4	23.5	21.2	25.9	26.4	20.9	19.0	19.2	19.4	21.2
0–17	22.0	25.9	19.8	23.6	26.3	26.3	24.7	24.4	23.4	24.3
18–24	16.2	19.2	15.0	16.2	19.4	21.0	22.3	20.1	19.8	16.9
25–49	17.3	18.8	15.7	17.3	19.1	19.9	19.3	18.7	17.4	17.4
50–64	21.2	26.3	23.5	25.4	23.9	21.0	20.9	20.1	20.8	20.5
0–64	19.1	22.1	18.2	20.3	21.8	21.7	21.2	20.4	19.8	19.6
65+	21.1	30.4	35.6	52.0	47.6	17.2	9.1	13.9	17.6	27.6

In 2007, the poverty risk in the age group of 65+ achieved 52%, whereas during the crisis it dropped down to 9.1% in 2010 and then increased up to 27.6% in 2013. At the same time, the poverty risk in the age group of 0-64, or in its age subgroups, this indicator was characterized with different trends with more pronounced increase in the poverty risk in 2008-2010, except the age group of 50-64, which also includes some retirees (until 2014, the retirement age for men and women in Latvia was 62 years).

To better demonstrate the link between income of people aged 65+ and poverty risk threshold which depends on the income of all social segments, Table 4 presents data on equivalent disposable income in the age group of 65+ in general, as well as in the households consisting of one person aged 65+, and the poverty risk thresholds in 2007, 2010 and 2013.

Table 4

Illustration of poverty threshold and equivalent disposable income and poverty risk threshold in the age group 65+ in 2007, 2010 and 2013



During the economic crisis retirees were the only group who were not affected by detrimental consequences of the crisis because the government guaranteed stability (not to reduce) of their pensions. Economically active population and persons supporting children and youth, especially those in age groups of 16-24 and 45-54, suffered most from the crisis (Figure 7).

Changes in disposable income per household member in different age groups vs. 2008 (2008 = 100%)

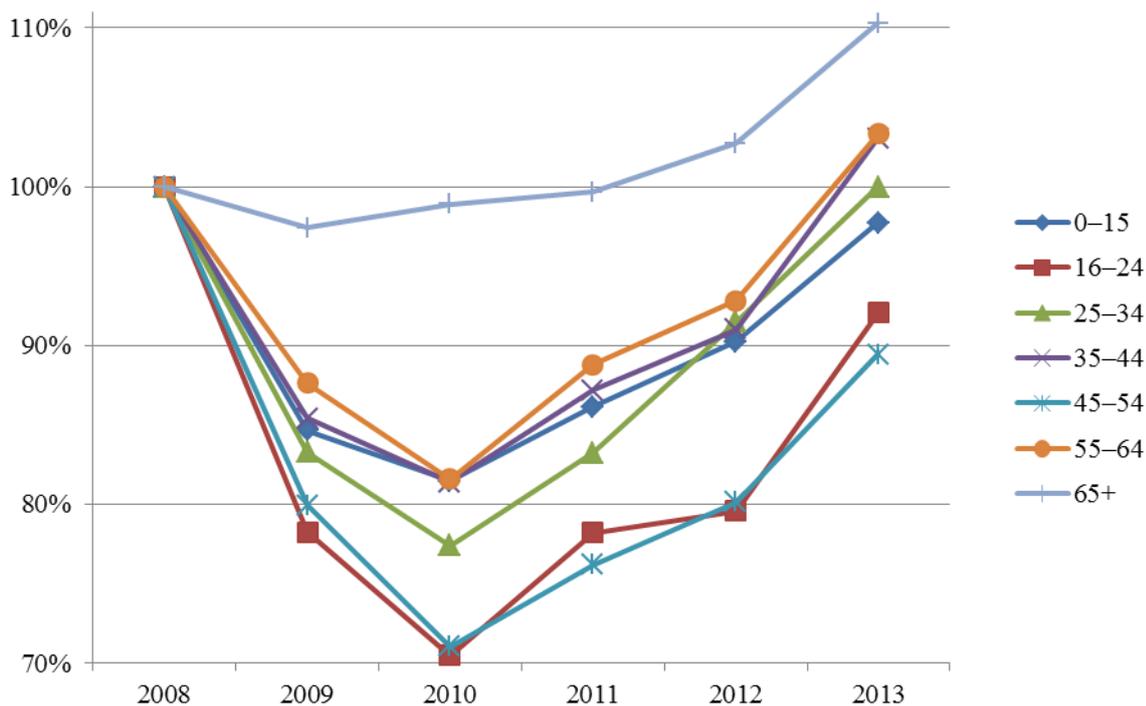


Figure 7

There is no direct link between AROP and SMD for the age group of 65+ (Figure 8). This can be partially explained by the fact that household material wealth is cumulative and does not change as quickly as household income or expenditures.

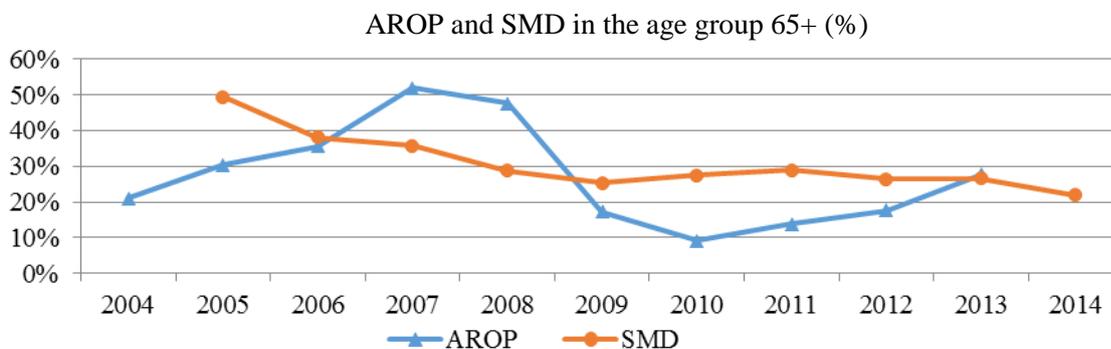
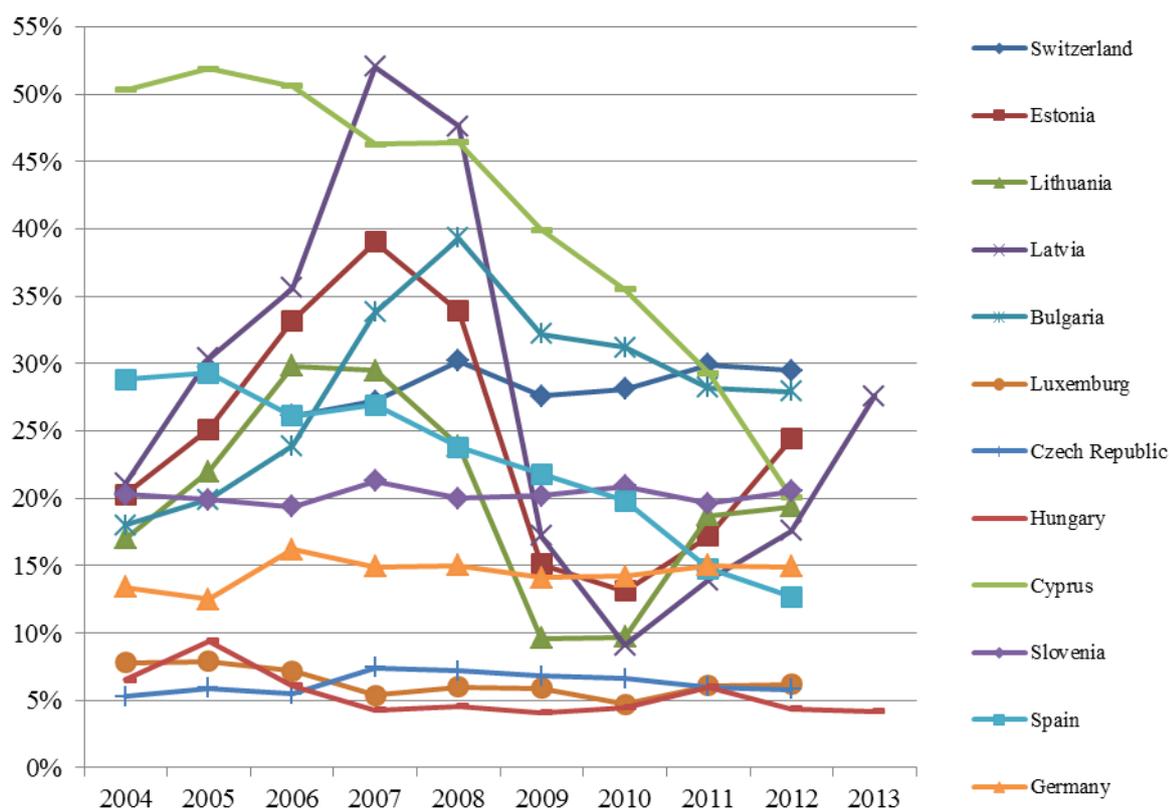


Figure 8

A similar trend in AROP, but less pronounced than in Latvia, is also found in the neighbouring countries: Estonia and Lithuania. On the other hand, EU countries have different trends for this indicator in the age group of 65+ (Figure 9).

AROP in the age group of 65+ in selected countries, 2004-2013* (%)



*Eurostat data; years correspond to the years of income

Figure 9

As one can see from the above figure, AROP for the age group of 65+ demonstrates different trends, of which the following can be noted: trend of drastic fluctuations in AROP (e.g. in Latvia, Estonia, Lithuania, Bulgaria), trend of low and stable AROP (e.g., in Czech Republic, Hungary, Luxemburg), trend of medium and stable AROP (e.g., in Slovenia, Germany), trend of high and stable AROP (e.g., in Switzerland), and trend of stable decline in AROP (e.g., in Cyprus, Spain). Varying trends in AROP behaviour in the age group of 65+ demonstrate that for this age group AROP does not reflect real changes in poverty but is rather linked to the specifics of social security framework in general, and specifically, pension system, including with respect to the rule of market at the labour market.

Latvia is a country with high income inequalities. It is paradoxical that the economic crisis helped to reduce such inequality in the country. Thus, in 2007 and 2008 Gini coefficient (Table 5) declined from the pre-crisis value of 37.5%, and starting from 2009 it is in the range of 35-36% (35.5% in 2013).

Table 5

Gini coefficient (%)										
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Gini coefficient	36.2	38.9	35.4	37.5	37.5	35.9	35.1	35.7	35.2	35.5

Latvia has one of the highest in the European Union (EU) S80/S20 income quintile share ratio. This indicator in the age group of 65+ is, however, in line with the EU averages (in 2012 it was 3.9 in Latvia and EU). At the same time, for the age group 0-64, the income quintile share ratio is one of the highest in the EU (in 2012, in Latvia was 7.0, and EU average was 5.2).

At the start of the crisis the income quintile share ratio in the above age groups had the opposite trends (Figure 10). This was mainly affected by the employment level: it declined in the age group of 65+ because

many working (prior to crisis) people of pension age lost their jobs but they were still receiving their old age pensions which resulted in lower inequality and lower income quintile share ratio, whereas in the age group 0-64 people who lost jobs, at the end of the period when they were eligible for unemployment allowance often lost their only source of income which resulted in the increase or insignificant reduction of the income quintile share ratio.

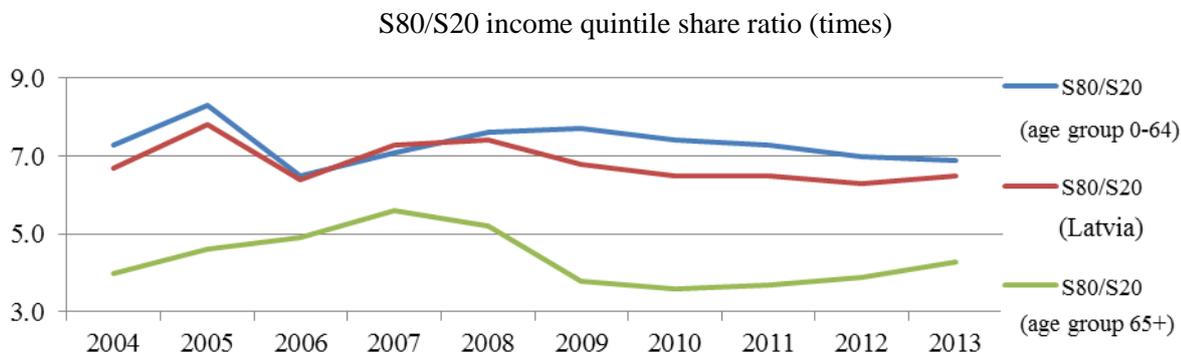


Figure 10

In general, in the same manner as Gini coefficient, the income quintile share ratio slightly declined as compared to the pre-crisis period and in 2013 it was 6.5 vs. 7.4 in 2008. It should be noted that in 2013, average disposable income per household member (not adjusted for inflation) reached the pre-crisis level (level of 2008), but with lower income inequality indicators.

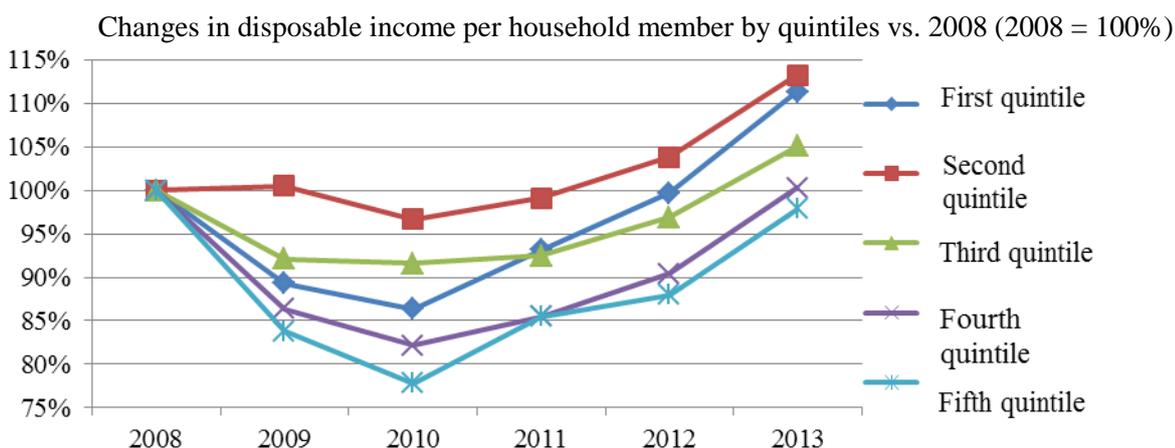


Figure 11

The analysis of the changes in income levels by quintiles (Figure 11) shows that as compared to 2008 the households of the first and second quintile had the highest increase in income, whereas households of the fifth quintile had the lowest increase, where the level of income hasn't achieved the 2008 level.

III. Main poverty indicators at the national level

Minimum income level

On December 10, 2013 the Latvian Government approved the *Proposals for improvements in the social security system* where one of the most important initiatives included the commitment to develop a new, methodologically sound and adequate minimum income level in accordance with the existing social and economic situation in the country.

On October 21, 2014 the Government approved the concept paper 'On setting minimum income level'. The overall purpose of the concept paper is to reduce poverty and income inequality based on solidarity principles. The concept paper proposes to set general and adequate minimum income level based on specific

calculation methods, which will serve as a starting point for devising support measures in the social security system (state welfare benefits, social insurance, and social assistance).

The concept paper recognizes that the existing minimum income levels in Latvia are not evidence-based; therefore the current minimum income levels are very low whereas poverty and income inequality indicators are high. The Government made the decision to set a new minimum income level in Latvia at 40% of national average disposable income. The following equivalence scale will be applied: 1 for the first household member and 0.7 for any other household member, including children. The data source for calculating the minimum income level will be EU-SILC.

At the moment, the Welfare Ministry is reviewing the possibility to link specific social transfers to the new indicator – minimum income level. The concept paper sets a deadline: all changes in the regulations are to become effective on January 1, 2017.

Subsistence minimum

Starting from 2014, the CSB stopped calculating subsistence minimum levels due to the outdated calculation methodology which was developed in 1991. The Welfare Ministry is working on the new methodology for calculating subsistence minimum. Unlike the minimum income level the new subsistence minimum will be for information only and will not be utilised in the regulation.

IV. Conclusion

Main findings and areas of future work:

- taking into account various dimensions of poverty as well as various possible indicators to characterize poverty, there might be different trends, therefore the work on multidimensional poverty and its methodology should be continued and improved. Attention should be also given to the fact that the general public faces difficulties with perceiving the methodology pertinent to this indicator. There are also different approaches to the dissemination of multidimensional poverty indicators with respect to the reference either to the year of a survey or to the year for which respondents provided data necessary for calculating specific indicators (CSB's approach). If CSB's approach is used, there is an issue with publishing concurrently all AROPE components and AROPE itself;
- it should be recognized that when there are significant changes in population's income, monetary poverty indicators may demonstrate trends opposite to the economic situation. In such cases more attention should be given to analysing monetary poverty in different age groups taking into account the specifics of income sources for specific age groups;
- it is important not only to improve the methodologies for estimating poverty and inequality indicators but also to focus on analysing reasons of poverty, including the development of methodology for estimating the so-called 'middle class';
- the Latvian Government decided to introduce an indicator of minimum income level, which will be the starting point for support measures in social security system. Though the chosen poverty threshold is lower than the one used in EU-SILC, the CSB supports this initiative of the Ministry of Welfare;
- due to the outdated methodology the CSB does not calculate the subsistence minimum indicator any longer but it plans to resume this practice after the Welfare Ministry provides an updated methodology for calculating subsistence minimum.
