

CHOSEN ASPECTS OF INCOME INEQUALITY IN SLOVAKIA

Importance of income disparity is in its linkage with serious economic and social processes that have been taking place in recent decades. Even though Slovakia has low income disparity – the distance between bottom and top end of income structure is not extra significant in comparison with other countries – it is important to look at the importance of this problem mainly due to future social and economic development of society. The goal of this article is to create a picture of creation of income disparity in Slovakia in years 2005-2013. The subjects of examination are chosen socio economic aspects of income disparity in relationship with the determined goal. Starting point and comparison parameters of empirical part of examined matter is EU SILC database, from which the analysis of income disparity and poverty in Slovakia is created.

Keywords: income disparity, Gini index, quantile index S80/20, equivalent disposable income of households, rate of risk of poverty, material deprivation.

ДЕЯКІ АСПЕКТИ НЕРІВНОСТІ ДОХОДІВ У СЛОВАЧЧИНІ

Обґрунтовано необхідність вирішення проблеми відмінності рівнів доходів, пов'язаної з економічними і соціальними тенденціями, що мали місце в останні десятиліття. Розглянуто процес формування нерівності доходів у Словаччині протягом 2005–2013 років. Основою порівняння параметрів емпіричної частини дослідження стала інформаційна статистична база показників доходу та умов проживання населення Європейського Союзу. Зазначено, що попри неістотне розходження величини доходів громадян у Словаччині (різниця між максимальним та мінімальним значенням доходів порівняно з іншими країнами є незначною) важливо звернути увагу на зазначену тенденцію, головним чином, зважаючи на майбутній соціальний та економічний розвиток суспільства.

Ключові слова: нерівність доходу, Індекс Джині, індекс квантиль S80 / 20, еквівалентний чистий дохід домашніх господарств, рівень ризику бідності, матеріальні збитки.

The article shows the importance of observation and evaluation of income disparity, which is perceived as one of the most significant form of disparity in our society. It emphasizes the interconnection between the income disparity and significant socio-economic processes that are currently happening. The objective is to create a picture of formation of income disparity in Slovakia in years 2005-2013 and its impact on households.

Even though Slovakia has a low degree of income disparity, it is important to look at the actuality of this issue mainly from the perspective of next social and economic growth of society and the need to solve poverty, which is considered to be connected with income disparity.

Introduction

No society is able to ensure income equality for all its members, but the view on increasing income disparity, which is reflected in the growing number of persons in material need and persons endangered by poverty, inadequate indebtedness of households, decrease in investments into human capital in low-income areas, increasing demands for social policy, growing debt of public financing and etc., raises dissatisfaction and concerns about the future among many members of our society.

Professional discussions about reasons and determinants of unequal distribution of income in society are being held, offering different explanations. From a wide spectrum of opinions on origin of income disparity we chose couple of views.

The most prevalent opinion among the experts is that the main cause of rise of inequality in the world is globalization (Harrison et al., 2011). Stiglitz (2013) points at globalization of trade and international technology transfers, which in consequence has raised the demand for qualified manpower. Technological progress, that requires qualification and skill, allowed raising the income of talented at the expense of the less talented workers and thus widening the income disparity.

On top of globalization of trade and technological changes some authors consider the decrease of minimal wage and liberalization of labour market as the main factor of growing income disparity (Lee, 1999, Teulings, 2003 and 2014).

According to other authors financial liberation and mobility of capital had significant impact on income disparity. They led to raised capital protection rights at the expense of employee's rights and decrease of union power (Abraham et al., 2009).

Fournier and Koske (2012) see the problem of growing income disparity in endogenous income determinants (inequality in education and experience, union power, type of employment contract, structural problems of labour market).

UN report (2013) divides income determinants to exogenous and endogenous, where the first group contains globalization of trade, financial globalization and technological changes and the second group contains macroeconomic policy, labour market policy, inequality in wealth, taxation and public expenditure.

It is without a doubt that globalization brought growing income disparity between the rich and the poor, growing of regional income disparities, but also a gradual shift of middle class to a lower level of income distribution. Today's stratification of income in the world is defined by growing of low-income groups on one hand and by strengthening of position of a small group of rich people on the other hand.

Most of analyses devoted to income disparity differ between the two concepts of income. Disposable income of households (net income after taxation, or after subtraction of transfers and social insurance expenses) and second type is market income of households, which they would have if they did not pay any taxes and social insurance expenses a did not receive any transfers – so income of households would be just salaries, capital incomes, savings and other sources from private sector (Meaning of creation of this income category is possibility to watch effect of state actions into distribution of income and other factors affecting changes of initial distribution before state actions of social and tax policy. Content of this analysis will be just the first concept – disposable income of households). Among most empirically confirmed sources of disparities in market incomes is disparity in salaries, position on labour market and in investment and capital incomes (Kenworthy, 2008). Disparity in salaries is influenced by minimal wage – it reduces disparity in salaries and vice versa, its growth is explained by growth for qualified workforce (Blau – Kahn, 2009). If we speak about disparity in disposable incomes, it is result of redistribution mechanism (setting socio-political mechanisms and tax system) – structural moves in economy, business or population are not the only bearers of disparity.

Income disparity in Slovakia

In our analysis we used the Gini index and the coefficient of income inequality S80/S20 (quantile index or quintile dispersion ratio, or ratio of top and bottom income quintile).

Relatively low value of the Gini index does not show too much income inequality in the Slovak society compared to other developed countries (Gini index for the EU 27 member countries was in 2013 30.5%). From the values of the second index can be read that in 2013, 20% of the richest households in Slovakia had about 3.6 times higher income level than 20% of the poorest households.

Table 1

Inequality in income distribution in the SR and the EU-27 (%)

		2005	2006	2007	2008	2009	2010	2011	2012	2013
SR	Gini index	26.2	28.1	24.5	23.7	24.8	25.9	25.7	25.3	24.2
	S80 / S20	3.9	4.1	3.5	3.4	3.6	3.8	3.8	3.7	3.6
EU 27	Gini index	30.6	30.3	30.6	30.9	30.5	30.5	30.8	30.4	30.5

Source: EU SILC 2005-2013

Financial and economic crisis that has paralyzed the global economy, caused in our Slovak conditions growth of income inequality, and the resulting increase of the risk of poverty. In our opinion, deterioration in Slovakia's position in international comparisons to be expected as adverse development in these indicators is likely due to the persistence of unfavourable economic conditions.

Table 2

Distribution of Households according to Monthly Equivalent Disposable Income Growth and Changes in Income Distribution of Households

Equivalent disposable income of household (€)	Households together (% shares)							
	2005	2006	2007	2008	2009	2010	2011	2012
to 100	2.77	1.39	1.21	1.10	1.01	1.12	1.10	0.80
101 – 200	13.32	9.12	4.39	3.10	2.76	3.51	2.90	2.20
201 – 300	34.25	27.75	19.44	14.32	8.90	6.81	6.40	5.30
301 – 400	25.67	29.54	29.85	28.04	24.82	15.90	15.10	12.70
401 – 500	12.57	15.53	19.75	20.07	22.12	20.94	22.00	20.20
501 – 600	5.83	7.66	11.70	14.08	15.00	16.29	17.40	16.90
601 – 700	2.49	3.83	5.92	8.45	9.06	12.79	11.70	11.90
701 -- 800	1.21	1.54	3.24	4.55	5.85	8.15	8.10	9.80
801 – 900	0.64	1.21	1.51	2.35	3.32	4.79	5.30	6.70
901 – 1000	0.27	0.61	0.82	1.38	2.63	3.56	3.40	4.30
1001 and more	0.97	1.83	2.15	2.56	4.52	6.15	6.60	9.40

Source: EU SILC 2005-2012

This analysis follows the development of the disposable income of households using equivalent scales. Based on Tables 2 and 3 can be analyzed the distribution of households and of persons in households into income ranges in equivalent disposable income and also to assess the dynamics of evolution in time. Since 2005, where

34.25% of households receive from 201 to 300 € (the equivalent disposable income), in subsequent years, income distribution moves through the third lowest income interval up to the fourth, where almost 21% of households receive 401 to 500 €. In years 2006, 2007, 2008 and 2009 the equivalent disposable income was most represented in interval 301-400 €, and in years 2010, 2011 and 2012 the households moved to interval 401-500 €. The least amount of households in years 2005, 2006 and 2007 was present in interval 901-1000 €. Curve of income distribution has changed the shape too - the cause was the decline in annual income of households in the lowest intervals.

Table 3 shows the evolution of income distribution of equivalent disposable income among persons in the household. At a first sight a trend of significant changes is apparent in income interval 901-1000 €, where the number of households grew until 2012 16.7 times.

Table 3

Distribution of Persons in Households by Equivalent Disposable Income per Month and the Dynamics of these Changes

Intervals according equivalent disposable income in €	Persons in households (% shares)							
	2005	2006	2007	2008	2009	2010	2011	2012
to 100	2.47	1.57	1.20	1.11	0.99	1.12	1.00	0.90
101 – 200	13.63	9.16	5.02	3.53	3.27	3.51	3.00	2.40
201 – 300	29.76	23.75	16.27	11.70	7.92	6.81	6.90	5.50
301 – 400	27.26	29.84	27.63	24.30	20.93	15.90	13.59	11.10
401 – 500	14.50	17.61	21.80	21.96	22.18	20.94	20.10	17.20
501 – 600	6.70	8.47	13.27	16.20	17.30	16.29	17.40	16.80
601 – 700	2.74	4.16	6.52	9.30	10.00	12.79	12.80	13.00
701 -- 800	1.21	1.71	3.67	5.34	6.42	8.15	8.70	11.00
801 – 900	0.62	1.25	1.67	2.50	3.61	4.79	5.90	7.30
901 – 1000	0.28	0.56	0.79	1.51	2.88	3.56	3.60	4.70
1001 and more	1.03	1.93	2.15	2.54	4.77	6.15	6.90	10.00

Source: EU SILC 2005-2012

Based on the data we can state that in observed period 2005-2012 the amount of households in the three lowest intervals was gradually decreasing. The most significant change was recorded in interval 201-300 €. At the same time the number of households in higher income intervals was increasing. Most noticeable change was in interval 501-600 €.

From a macroeconomic perspective, Slovakia is not among the countries with high income inequality. This does not preclude the fact that large income differences between some social groups, or between and within regions were created.

Low income is usually the main feature of poverty, although the causes of poverty are much broader in shape. Poverty can be seen as an expression of extreme inequality in the society. Today it is a serious socio-economic problem faced by many countries, including Slovakia. According to this indicator, Slovakia is among the countries least vulnerable to poverty. In Slovakia in 2013 faced the risk of poverty for low income 12.8 % of the population. The value of the at-risk of poverty which is calculated from EU SILC 2013 was set for one-person household to 337 € per month. Year-to-year increase of at-risk of poverty threshold was approximately 9 € per month. For a household with 2 adults 2 children was the amount of € 707 per month –compared to previous year it was increase – approximately by 20 €.

Another important factors for risk of poverty are age and sex. Based on the results of EU SILC 2013, the most vulnerable by poverty were people in the age group from 0 to 17 years (18.4%), the least were those aged from 65 years and older (6.1%). The gender difference is mostly visible in the age group 65 years and above, where the risk of poverty is much more exposed women (7.7%) than men (3.3%).

According to type of household, in 2013 it were the households of two adults with 3 or more dependent children (29.9%) and incomplete households with at least one child (30.1%) that were the most endangered by the risk of poverty. It turns out that a higher number of dependent children in households as well as the absence of another adult member in case of incomplete households in long term results in the fact that these types of households are particularly more threatened by the risk of poverty than households with no children.

Risk of poverty and social exclusion in Slovakia represents 19.8% of the population, representing 1.070 million people in comparison with the previous year. The indicator of low labour intensity reflects the proportion of people aged 0-59 years living in households where adults work less than 20% of the total time during the previous year. According to this indicator 6.0% of people lives in households where nobody works or works only occasionally and in comparison with the previous year the situation has become worse.

Conclusion

Slovakia is still characteristic of low levels of income inequality –the distance between lower and upper end of the income structure is not too strong in comparison with other countries. The income disparity in Slovakia, observed in years 2005-2013, according to Gini coefficient was moving between 24.2 and 28.1 %.

Low degree of income disparity in Slovakia does not exclude the poverty problem. Currently 12.8% of Slovak citizens are endangered by a risk of poverty, the most endangered are young people aged 17 down and incomplete families. Out of the whole population facing enforced deficiency in three items 23.4 % and in four items 10.2 % of Slovak citizens. By enforced deficiency in three items children in age 0-17 (25.5 %) and people older than 65 years (26.5 %) were the most endangered. From the viewpoint of gender separation, in all age categories, women are more endangered than men.

Slovak Republic in connection with the adoption of EU Strategy 2020 has set a target to set free at least 170 000 people from the risk of poverty and exclusion by 2020. The target group includes people who are identified by the three indicators, namely the risk of people living in poverty or social exclusion.

The contribution is outcome of scientific project VEGA nr.1/0368/14 "Orthodox and heterodox approaches in economic theory of their use in dealing with economic problems of the presence (with emphasis on the global economic crisis)".

References

1. Abraham F., Konings J., Vanormelingen S. 2009. The effect of globalization on union bargaining and price-cost margins of firms. In: *Review of World Economics* 145, 1, p. 13-35.
2. Blau F. D., Kahn L. M. 2009. Inequality and Earnings Distribution. In: SALVERDA, W. – NOLAN, B. – SMEEDING, T. (eds): *The Oxford Handbook of Economic Inequality*. Oxford University Press.
3. Fournier J., Koske I. 2012. Less Income Inequality and More Growth – Are they Compatible? Part 7. The Drivers of Labour Earnings Inequality – An Analysis Based on Conditional and Unconditional Quantile Regressions. OECD Economics Department Working Papers, No. 930, OECD Publishing.
4. Harrison A., McLaren J., Mcmillan M. 2011. Recent perspectives on trade and inequality. *Annual Review of Economics*, 3: 261-289.
5. Kenworthy L., Pontusson J. 2005. Rising Inequality and the Politics of Redistribution in Affluent Countries. In: *Perspectives on Politics* 3.
6. Lee D. 1999. Wage inequality in the United States during the 1980s: Rising dispersion or falling minimum wage? *The Quarterly Journal of Economics*, Vol. 114, No. 3, (August), pp. 997–1023. URL: <http://qje.oxfordjournals.org/content/114/3/977.full.pdf>
7. OSN. 2013. Inequality matters: Report of the World Social Situation 2013. New York: Department of Economic and Social Affairs of United Nations.
8. Stiglitz J. 1997. *Ekonomie veřejného sektoru*. Praha: Grada Publishing 1997. ISBN 80-7169 454-1.
9. Social situation observatory. 2009. *Income Distribution and Living Conditions. Annual Monitoring report 2009*. European Commission
10. Štatistický úrad SR. 2006–2014. EU SILC 2005–2013. Zisťovanie o príjmoch a životných podmienkach domácností v SR. Bratislava. URL: <http://portal.statistics.sk>
11. Štatistický úrad SR. 2006–2014. EU SILC 2005–2013. Indikátory chudovy a sociálneho vylúčenia. Bratislava. URL: <http://portal.statistics.sk>
12. Teulings C. N. 2003. The contribution of minimum wage to increasing wage inequality. *The Economic Journal*, Vol. 113, Issue 490, (October), pp. 801, 833.
13. Teulings C. N. 2014. Why does Inequality grow? Can we do something about it? *Economist's View*, (15. June). URL: <http://voxeu.org>

Надійшла 03.04.2015; рецензент: Prof. Ing. Privarova M.