

SOCIAL AND ECONOMIC CONSEQUENCES OF THE RECENT MINIMUM WAGE RISE IN LITHUANIA

Vita Karpuškienė*

Vilnius University, Lithuania

Abstract. *The government of Lithuania actively increases the minimum wage in 2012–2014: in-one-and-a-half year period it increased by 22 percent – from 246 EUR (850 LTL) to 300 EUR (1035 LTL). It is promised to increase the minimum wage in 2015 as well. The amplification of the competitiveness of the economy is one of the main conditions of economic development. This is emphasized by economists, Lithuanian government, and European Commission. The core issues of the competitiveness of Lithuania are the energy sector and the labour market. Such statement is provided by the European Commission in the 2014 report on Industry competitiveness. Therefore, the aim of this article is to evaluate the economic and social consequences of the increased minimum wage and their impact on the competitiveness of the labour force. In the first part of the article, changes of the minimum wage and their economic and social consequences are analysed. In the rest part of the article, the impact of these consequences on the competitiveness is evaluated.*

Key words: *minimum monthly wage (MW), labour costs, labour productivity, structural unemployment*

1. Introduction

In 2012–2014, the Lithuanian government undertook relatively radical changes in the minimum wage: in 2013 the minimum wage was increased by 150 LTL (43.44 EUR) – from 850 LTL (246.18 EUR) to 1000 LTL (289.62 EUR) and in October 2014 again by 35 LTL to 1035 LTL (300 EUR). Authorities in the Lithuanian Seimas and government promise the further increase of MMW to 325 EUR in July 2015. The increase or stabilization of the MMW depends on the prevailing opinions of governmental authorities, the activeness or popularity of professional unions, and support from society. Traditionally, the ruling social-democratic political parties are more likely to choose the increase of MW, while more liberalistic political parties emphasize the influence of economic growth on changes in the living standard.

The aim of the research is to evaluate the social and economic consequences of MW increase from 850 to 1035 LTL in 2013–2014 on the labour market and its competitiveness, and to answer the question whether the further MW increase would lead to negative consequences.

* *Corresponding author:*

Faculty of Economics, Vilnius University, Saulėtekio 9, II Building, Room 813. Vilnius.
E-mail: vita.karpuskiene@ef.vu.lt

Research methods. Summarization of insights from latest scientific publications in Lithuanian and English; statistical and comparative analysis of data from Statistics Lithuania, State Social Insurance Fund Board (SODRA), and Labour Exchange. This is a short-term impact analysis. To reveal a long-term impact, a longer observation period is needed.

The following objectives were achieved during the research:

- a search and analysis of latest publications on the impact of the minimum wage;
- the evaluation of economic and social consequences of MW increase.
- the analysis of MW impact on the competitiveness, based on the data of the first half-year of 2013 and of 2014.

The first part of the article presents insights from researches by Lithuanian and foreign authors on the possible short-term and long-term consequences of the MMW increase. The second part examines the facts and insights on the short-term consequences of the MMW increase to 1035 LTL. Finally, an evaluation of the impact on the competitiveness of the labour market is provided.

2. Overview of researches

The analysis of publications and information by foreign authors was performed in three groups of sources: 1) scientific literature; 2) documents and reports by international organizations (OECD, Eurostat, ILO, IMF and WB); 3) periodicals: *The Economist*, etc.

The most cited authors in foreign scientific publications are Card D. and Krueger A.B. (1998), Neumark D. and Washer W. (2000). In the analysis of the impact of hourly minimum wage increase on employment in fast food restaurants in the USA (New Jersey and Pennsylvania), authors provide completely different results. In the first article, a positive impact on employment is identified, whereas in the second article the impact is negative. Although plenty of researches were conducted after the article by Card and Krueger had been published, a contradiction between these two positions remains. In the recent years, the number of publications that oppose MW increases. For instance, M. Wilson (2012) presents a conclusion from meta-research of more than a hundred published researches on the impact of MW on employment: two thirds of his results confirm a negative or an insignificant impact of MW on employment, and only 8 researches detect a positive impact.

The analysis of the long-term dynamics of real MW changes in the EU countries (Shulten, 2014) revealed different growth rates among the old EU countries and its new members. In the period of 2001–2012, the average annual percentage changes in West Europe were less than 2 percent, while in Eastern Europe they were twice or even more higher.

2001–2012 average annual percentage change of real MW deflated by the consumer prices

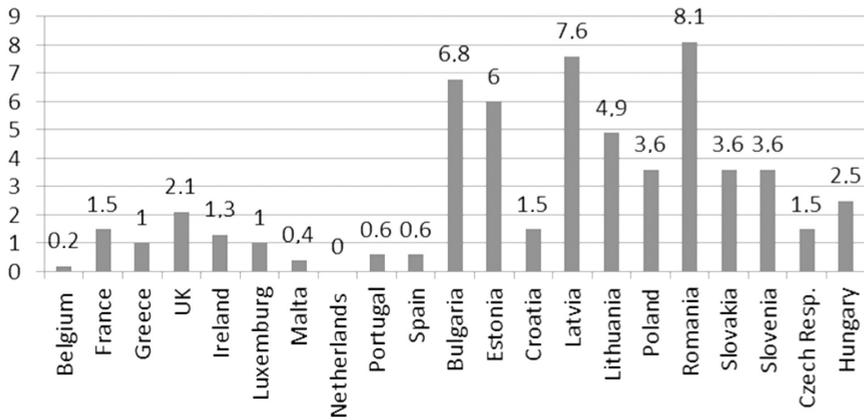


FIG. 1. Percentage change from 1 January of the current to 1 January of the following year; deflated by the development of consumer prices; average annual

Source: WSI minimum wage database.

In Eastern Europe (Pavelka, 2014), higher growth rates were reached by countries of Central and Eastern Europe. The Baltic States (Latvia, Lithuania, Estonia) and also Bulgaria and Romania reached double-digit rates of growth. As a result, researches revealed more often the negative impact on employment or a positive impact on unemployment in Eastern countries.

In the documents and reports by international organizations (OECD, Eurostat, ILO, IMF, and WB), the information on the size of MMW and its proportions with the average and median wage (Kaitz indexes) in the EU and other countries is presented from various perspectives. In the recent documents, it is stated that a moderate increase of the minimum wage is not necessarily harmful; in certain cases it is even beneficial. The increase by up to 40 per cent of the median wage is considered moderate (OECD). Moreover, it is stated that "...harm or benefit depends on the difference between established MMW and the average wage in the market". The more difference, the more harm. The authors suggest various automatic mechanisms of minimum wage adjustment to the average wage (New York Times, 2013-03-15).

Overview of researches and publications on MW in Lithuania

The analysis of publications by Lithuanian authors was performed in three segments of publications: 1) monographs; 2) publications in scientific journals (Ekonomika, Pinigu studijos, etc.); 3) research reports by scientific and other research institutions.

Main insights: scientific publications by Lithuanian authors focus on the questions of the relevance of rates and differentiation of MMW. In the examination of MW rates,

two tendencies of researchers' argumentation can be distinguished. The first emphasizes the satisfaction of needs of MW receivers: a dignified life, job motivation, etc. These authors cite article No.135 of recommendations by the International Labour Organization, which defines six groups of criteria, or the factors that must be considered while fixing the level of the minimum wage in a country (needs of employers and their families, the overall level of wage in a country, the minimum living standard and its changes, the social support system and social allowance rate, living standards of various social groups, such economic factors as the economic growth or the employment level)¹.

The second group of arguments focuses on employers' ability to pay MW of a particular rate. Negative consequences of a rapid MW increase are presented: decreased employment, especially among young people, the increase of bankruptcy risk among small and medium enterprises, the increase of unofficial wages, etc. It is highlighted that in fixing the minimum wage, the impact of MW increase on higher qualified employees' wages should be taken into consideration.

In publications dedicated to MW differentiation, it is often recommended to differentiate the MMW. In the research "Assumptions and consequences of minimum wage increase" by the Labour and Social Research Institute (DSTI) (DSTI, 2004), the following differentiation segments are proposed: economic activity (agricultural sector); region (small cities and countryside); employee groups (lowest qualification employees). The research "The analysis of the influence of minimum wage increase on small and medium enterprises", conducted in 2005 on the request of the Ministry of Economy of Lithuania, proposes fixing different MMW: for textile, wood, hotel and restaurant, agriculture, hunting, forestry sectors. In 2009, the Trilateral Council released recommendations where MMW differing by region, economic sector and qualification groups were suggested.

In the Lithuanian case, it is noticed that the MW influence on employment is stronger, while the influence on unemployment is less significant. In the evaluation of MW influence on the level of employment in private and public sectors independently, it is identified that MW has no influence on employment in the public sector, whereas in the private sector its impact is poor; however, it becomes significant after three or four quarters (Karpuskiene, 2011). Additionally, a non-linear relationship between the MW ratio and changes of the employment level is identified. When the MW ratio does not surpass 37 per cent of the average wage, the employment increases, and when this level is exceeded, the positive influence weakens and changes into negative.

The Lithuanian Free Market Institute (LFMI, 2015) conducted a survey of 181 Lithuanian companies, two thirds of which had up to 50 employees. The survey revealed four negative effects.

¹ R135 - Minimum Wage Fixing Recommendation, 1970 (No. 135)
Recommendation concerning Minimum Wage Fixing, with Special Reference to Developing Countries
http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_ILO_CODE:R135

The minimum wage increase in 2012 and 2014 negatively affected every third surveyed company. Secondly, an increase in the minimum wage triggers wage cuts, job cuts, and limited working hours for some employees. Thirdly, an increase in the minimum wage today means no higher wages tomorrow.

Fourthly, about one fifth of the surveyed companies chose to raise prices to compensate for the minimum wage increases in 2012 and 2013.

3. Lithuanian MW: facts, changes, and comparisons

The MMW in Lithuania was legalized immediately after the declaration of independence. During this period, it increased from 35 LTL to 1035 LTL. Several periods of its active increase can be distinguished: 1993–1997 when the minimum wage increased from 35 LTL to 400 LTL; 2004–2008 when the increase was from 430 LTL to 800 LTL, and the current period which started in 2012 when the MMW increased from 800 LTL to 1035 LTL. In general, the above-mentioned periods correspond to the domination of social-democratic political parties in the Seimas and the government. In statements by the Seimas, it is promised to further increase the MW in 2015. Therefore, the question arises: to what ratio the MW could be increased without lowering the competitiveness of the labour force?

In 2013, the MW consisted of 42–44 per cent of the average monthly gross wage. In other periods, the MMW in Lithuania did not decrease to more than 37 per cent level.

Similarly to the majority of countries in the world, in Lithuania the average wage exceeds the median wage. For example, in 2013, according to Statistics Lithuania, the average wage in Lithuania was 2280 LTL, while the median wage was only 1866 LTL. The current MW is 53 per cent of the median wage, which is one of the greatest proportions in the EU (after France and Slovenia).

Hence, considering the fact that even after the increase to 1035 LTL or 300 EUR the MW in Lithuania was relatively low in comparison with other EU countries, the possibilities of its further increase are limited. This is caused by several reasons. First of all, a significant part of employees receive the minimum wage; therefore, its increase requires large additional financial resources, both from the State budget and the private sector.

Usually, the MW increase is initiated by politicians or social organizations such as professional unions and social-democratic parties, or parties with similar views, in their electoral programmes. The latter emphasize the positive economic and social consequences of the MW increase. The following consequences are declared:

Social:

1. Improves living standards of people with low income rates and reduces poverty.
2. Saves expenditures on social support.
3. Increases incomes of the social insurance funds and the state budget.

Economic:

1. As a result of increased income, the consumption increases and, in turn, contributes to economic growth.
2. Stimulates the automation and technical progress in production and services.

Economists, on the other hand, highlight the negative consequences:

1. The minimum wage reduces the demand for a low qualification, i.e. reduces employment and increases unemployment.
2. It increases the bankruptcy risk among small and medium enterprises.
3. It induces employers to pay unofficial wages.

Below, we present an analysis of statistical data and the evaluation whether the consequences mentioned above took place in Lithuania after the MMW increase in 2013–2014. The analysis is short-term.

Social consequences:

1. The income of people with low income rates, and poverty.

As the data suggest (Statistics Lithuania, Press release, 2014), the average wage in Lithuania in 2013 increased by 4.6 per cent. Wages of employees in the public sector increased by 2.9 per cent and in the private sector by 6.2 per cent. Such an increase is undoubtedly caused by the economic growth in 2012 and 2013. It is assumed that these results are influenced by the MW increase as well, and data from the SODRA support this statement (see Fig. 2).

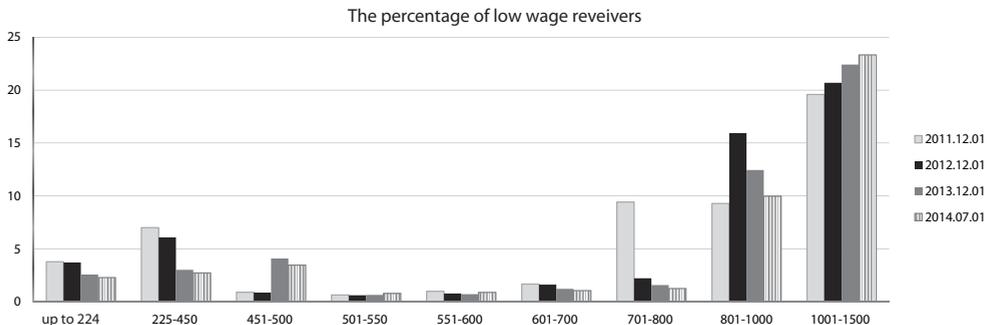


FIG. 2. Wage distribution of employees

Source: data from SODRA database: <http://atvira.sodra.lt/>

As is shown by the data above, in 2013 several shifts in the wage structure occurred. Firstly, the number of employees who received less than 450 LTL decreased by 39 thousands (44 per cent). Wages of the majority of them (26 thousands) increased to 500 LTL, which amounts to a half of the minimum wage in 2013. The second significant change: the number of employees who received 800–1000 LTL decreased by 41 thousands in

2012. Possibly, their wages increased to or above 1000 LTL because of the increase of the minimum wage. Data of the Statistics Lithuania show that the majority of wage increase (about 14 per cent) took place in accommodation and food service, as well as in construction and real estate companies. These economic sectors contain the biggest percentage of MMW receivers. The MMW impact in the public sector was weaker, because here the percentage of employees who receive MMW is lower. The data lead to the conclusion that the MMW increase to 1000 LTL caused the increase of the average wage as well, especially in the private sector. Moreover, we can conclude that this increase occurred at the right time – during the economic growth.

Despite that, it is doubtful whether the wage increase reduced poverty in Lithuania. Such a conclusion is supported by statistical data. The poverty risk level in 2013 was 20.6 per cent; in comparison with 2012, it increased by 2 percentage points. The poverty level increased by 3.2 percentage points in the countryside and by 1.4 percentage points in cities. Such results were obtained for several reasons. First: the feature of poverty level measurement, which is sensitive to changes in income distribution. The second reason: the majority of the poor in Lithuania do not participate in the labour market, i.e. they are unemployed, less often old-age pensioners, as well as children from large families with one working parent. Therefore, the MMW increase is not an effective method for poverty reduction in Lithuania. A more precise and purposeful method to improve the conditions of employees with low incomes is the use of various social policy procedures.

2. It is also doubtful whether a higher MMW reduces expenditures on social support. During 1995–2013, the MMW increased several times (about 400 by per cent in total), expenditures on social support increased 6 times, and the number of social allowance receivers doubled. The data show that in 1996–2013 the number of allowance receivers increased together with the MMW increase.

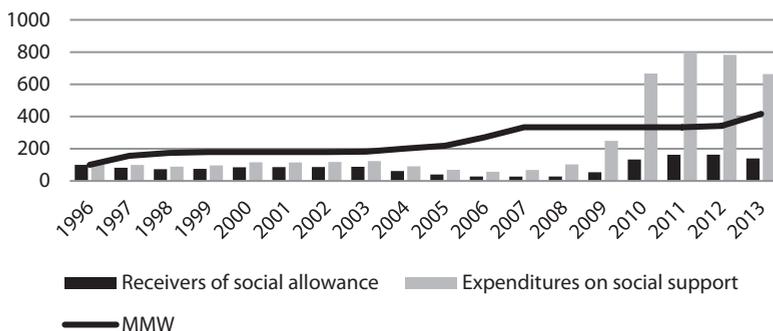


FIG 3. The dynamics of MMW and social support

Source: data from Statistics Lithuania <http://osp.stat.gov.lt/temines-lenteles41>

3. The other argument that MMW increase raises the incomes of social insurance funds is correct, because the social insurance tax applies to wage funds in companies and it consists of 31 per cent covered by an employer and 3 per cent covered by an employee. With the minimum wage increase, the tax burden on labour force increases accordingly. An employer who increases the minimum wage of an employee by 150 LTL must increase labour costs by 196.5 LTL, where 46.5 LTL is given to the SODRA as a social insurance tax.

To summarize social consequences, in short term the increase of the minimum wage to 1000 LTL raised the wages of employees who received less than 1000 LTL, increased transfers to the SODRA, but, did not reduce poverty and expenditures on social support.

Economic consequences

The increased minimum wage stimulates consumption which, in turn, increases the demand for goods. It is plausible that this statement is correct in Lithuania's case; statistical data reveal that in families with a low income (first and second deciles of the study on household expenditures), food, clothing and accommodation account for about 70 per cent of the total household expenditures. Hence, the MW increase is beneficial not only for people with a low income but also for manufacturers of the above-mentioned goods, and the latter is illustrated by the growing volumes of retail business.

Economists or politicians with liberal views, who oppose the MW increase, emphasize the negative impact of minimum wage increase on employment. This argument is based on the economic theory: an increase in good's price reduces the demand of a good and increases its supply. The MW is a price of low qualification or youth, inexperienced labour force. Therefore, the MW increase reduces the demand of employees of this category. The latter statement is correct when the MW increase exceeds the equilibrium wage in this category in the labour market. For this reason, in many countries the MW forms a relatively small part – about 30–40 per cent of the average wage.

The statistics of Lithuania (Statistics Lithuania. Press release ... 2014) show that in the second quarter of 2014 the unemployment level in Lithuania was 11.2 per cent: in comparison with the previous quarter it decreased by 1.2 per cent. However, it was only by 0.5 percentage points lower than a year before. In 2012, the unemployment level decreased by 2 per cent and in 2013 by 1.6 per cent. This was determined by the decrease of youth unemployment which reduced by 5.9 and 4.8 per cent in 2012 and 2013, respectively. The decrease of the unemployment level was caused by the rapid economic growth which incorporated more young people into the labour market. The recent researches show that the MW increases the unemployment level not as intensively as it decreases employment. The unemployment level can decrease not only because of the increase of employment, but also because of demographic factors and emigration, which are relevant for Lithuania. In 2012 and 2013, employment in Lithuania was increasing by 2 per cent per year.

Hence, there is no evidence of a negative short-term impact of MW increase on employment and unemployment in 2013. Nonetheless, in 2014, the unemployment decreased comparatively slower. Structural unemployment became more evident as employers were unable to find employees with a required qualification, although the unemployment level in the country exceeded 11 per cent. The minimum wage can increase structural unemployment due to dismissal caused by an increase in low qualification labour costs to the employer, as well as due to the automation of production and services. Unqualified labour force is rapidly replaced by machines in Lithuania, for example, automatic car wash, self-service cashiers in grocery shops, video cameras instead of security guards, etc. Hence, the growing price of the low qualification labour force accelerates this process. For example, the major retail chains plan to install 80–100 self-service cashiers each; this will replace 3–4 employees, and the payback period is about 4–5 years (Verslo žinios, 2014-09-25). The automation of production and services lowers the demand for the low qualified labour force; however, it has a positive impact on labour productivity.

Lithuania's small business sector is rather weak, and additional costs caused by MW increase and in line with the SODRA tax increase costs for small businesses. According to the data by Statistics Lithuania, in 2013 the number of bankruptcy procedures increased by 18 per cent. Small retail and wholesale companies who have 9 or less employees are at the bankruptcy risk. In the better position are companies that produce goods or services of an inelastic price. Here, increased labour costs can be transferred to customers by increasing prices of products. Such process can occur in conditions of economic growth, but not during the recession or crisis. Employers who have no opportunity to increase prices of goods after MW and labour costs increase may face solvency issues. Therefore, after MW increase, small businesses often reduce the number of jobs or working hours. Such a dismissal is rather expensive as labour laws provide relatively large redundancy payments. Reducing working hours sometimes can be fictive when part of working hours is compensated officially and the remaining part is paid unofficially. It is difficult to identify what part of the employees who receive the minimum wage or less in fact work part-time and what part contribute to the expansion of the shadow economy. Data from the Statistics Lithuania show that the number of part-time employees who received the minimum wage or less increased by 2.2 per cent in 2013 versus 2012 and now is 20.7 per cent – more than one fifth of all the employees.

The statement that the increased labour costs would increase inflation in 2013 was not proven, because that year the inflation was lowest since 2008 – only 1 per cent.

To conclude the performed analysis, we can state that because of the economic growth in 2012 and 2014, the MMW increase in 2013–2014 had no significant negative consequences in short term, except the increased number of bankruptcies among small enterprises.

4. The competitiveness of the labour market

The concept of competitiveness is defined differently. In this article, we use it as a country's employees' ability to maintain the growing labour productivity due to the growing qualification and innovativeness. This implies that labour force becomes more effective, and every employee is more productive per time unit. In terms of labour costs, the increase of competitiveness means the increase of return on labour costs,

Labour costs is the price of labour force that consists of the wage and labour taxes. The increase of labour cost is positive when the qualification and productivity of labour increase. This is an internal factor stimulating the increase of wages. Such an increase is fully consistent with the increase of the labour force competitiveness.

Alternatively, the new requirements or regulation from the government or non-governmental organizations, for example, professional unions, to increase MW at the governmental level, or additional labour force taxation, i.e. social insurance, income and other taxes are the external factors of labour cost increase. An impact of the increase of external labour costs is not necessarily related to the growth of labour productivity and qualification. If labour costs increase faster than labour productivity, labour force loses its competitiveness due to the decreasing return on labour costs. If the external factors stimulating wage increase occur together with a rapid growth of labour productivity, the competitiveness of labour force does not decrease.

In 2013–2014, the government increased the MW by 150 LTL. The question how such measures impacted the competitiveness of labour force is relevant. As mentioned above, after MW increase, the average wage increased by 4.8 per cent in 2013 in comparison with 2012 (data from the IV quarter) and by 4.6 per cent in 2014 in comparison with 2013 (II quarter). In 2013, the biggest wage increase (143 LTL) was identified among the employees who received the lowest wages. This was caused by the increase of the minimum wage. Together with MW increase, labour costs for employers increased by additional 31 per cent due to social insurance taxes. Therefore, with the MW increase by 150 LTL in 2013, labour costs which consist of the wage, SODRA's and income taxes, increased by 7 per cent (Data from Eurostat, Labour Cost 2014).

A comparison of costs per working hour and labour productivity can disclose the tendencies of the labour force competitiveness.

From 2004 to 2011, labour productivity in Lithuania grew rapidly, often even most rapidly among the European Union countries. In 2010 and 2011, the growth was 6–7 per cent per year. Such a rapid growth was determined by several reasons. Firstly, due to the migration and crisis in Lithuania, the decrease of employment was faster than the production and service volume shrunk. Secondly, the created value of one employee per time unit grew because of the modernization of production and employee qualification.

The previous rapid growth of labour productivity has significantly slowed down in 2013–2014 and now reaches only 2 per cent. This means that externally caused labour force price growth does not create additional value.

Thus, we can conclude that in the last two years the labour cost grew faster than labour productivity. Hence, in the current situation, the further increase of the minimum wage over productivity would have a negative impact on the competitiveness.

In September 2014, the European Commission announced a report on the competitiveness of the EU countries. Two spheres – energy and labour market – in Lithuania are identified as having issues with the competitiveness. The following detailed labour market issues are presented in the report: growing labour costs, insufficient labour productivity, and structural unemployment.

For young people, the beginning of employment with the minimum wage is fully acceptable as this is a period of gaining experience and is usually short-term. However, the frequent increase of the minimum wage can demotivate older people in terms of qualification increase and push them towards focusing their efforts on claims for the MW increase.

In fact, MW increase in 2013–2014 occurred at the right time and did not lead to negative consequences; however, the growing labour costs, slowed labour productivity growth, and the structural unemployment limited the possibilities of a rapid increase in MW. Consequently, in 2015, intentions to the further increase of the minimum wage are untimely as there is a risk of loss in the growth of the labour force competitiveness.

Conclusions

The analysis of the social consequences of MW increase revealed that in short-term the increase of the minimum wage to 1035 LTL (300 EUR) increased the wages of the employees who receive less than the MW, increased the revenue of the SODRA, however, did not reduce poverty and state budget expenditures on social support.

The MMW increase occurred at the right time as it coincided with the period of a rapid economic growth; hence, except the increased number of bankruptcies among small enterprises, it did not lead to significant negative consequences, did not reduce employment, did not increase unemployment, and did not cause inflation. Even after the increase, the MW in Lithuania is relatively small in comparison with other countries of the EU, and the possibilities of its further increase are limited. This is caused by several reasons. First, significant part of employees receive the minimum wage, thus its increase requires major additional financial resources both in the state budget and in the private sector. Moreover, together with the MW increase, as the Lithuanian social insurance laws propose, labour costs increase by additional one third due to social insurance transfers.

According to recommendations by the International Labour Organization and the Organization for Economic Co-operation and Development, when the MMW is about 40 per cent of the median gross wage it does not lead to negative consequences. Currently, the MW in Lithuania reaches 53 per cent of the median wage. Among the developed countries, only France and Slovenia have greater proportions. The increase of this proportion would inevitably lead to the increase in the already rather large number of MW receivers, including employees with a rather different qualification. Hence, an essential assumption for MW increase is the increase of the average wage together with the labour productivity growth.

The increase of labour costs in the past two years, the slowing growth of labour productivity and more evident structural unemployment reduce the competitiveness of the labour force. Therefore, in the current situation, the further increase of the minimum wage would have a negative impact on the competitiveness.

The further increase of the MW should not occur by leaps, it should be gradual and consistent with labour productivity growth and the average wage increase in the private sector. Reasonably, the MW should not exceed the current proportion of the average wage – 40 per cent of the average gross wage.

The research was conducted in the association with the Research Council of Lithuania as part of the long-term economic research programme “Long-term competitiveness challenges of Lithuanian economy”.

REFERENCES

Adison J.T, McKinley L. Blackburn, Cotti Ch.D. (2008) The Effect of Minimum Wages on Employment County Level Estimates for the United States. IZA Discussion paper series. 2008.

Card, D., Krueger, A. Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania: Comment. Retrieved from: <http://www.econ.jhu.edu/people/Barnow/neumarmw.pdf>

Employment Policies Institute. Minimum Wage. Retrieved from: http://epionline.org/index_mw.cfm

Eurostat. Minimum Wage Statistics. Retrieved from: http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Minimum_wage_statistics

Global Wage Report 2012/13. Retrieved from: http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_194843.pdf

Eurostat Database. Retrieved from: http://epp.eurostat.ec.europa.eu/portal/page/portal/labour_market/labour_costs/main_tables

Eurostat. Monthly minimum wage as a proportion of average monthly earnings (%) - Nace Rev.1.1. Retrieved from: http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/dataset?p_product_code=EARN_MW_AVGRI

Karpuskiene V. (2011). The impact of minimum wage on the labour market of Lithuania. *Ekonomika*, Vol. 90(2), p. 78–87.

Neumark, D; Wascher, W. L. (2008). *Minimum Wages*. Cambridge: The MIT Press, 377 p. ISBN 978-0-262-14102-4.

Pavelka, T. (2014). The Minimum Wage and Its Development in the Member States of the European Union. *Intelektinė Ekonomika / Intellectual Economics* 2013, Vol. 7, No. 3(17), p. 320–332. ISSN 1822-8011 (print) ISSN 1822-8038 (online).

Schulten, T. (2014). *Minimum Wage Regimes in Europe – A Nordic Outlook*. Fafo-Report No.16; February 2014, <http://library.fes.de/pdf-files/id-moe/10558.pdf>

Statistikos departamento duomenų bazė. Retrieved from: <http://db1.stat.gov.lt/statbank/default.asp?w=1152>

Šilėnas, Ž. Retrieved from: <http://4liberty.eu/the-side-effects-of-the-minimum-wage-increases/>

Waltman, J. (2000). *The Politics of the Minimum Wage*. University of Illinois Press. Retrieved from: <http://books.google.com/books?printsec=frontcover&vid=ISBN0252025458&vid=LCCN99006830#v=onepage&q&f=false> >

Wilson, M. (2006). *The Negative Effects of Minimum Wage Laws*. Policy Analysis Nr. 701, June 21, 2012.

Vetlov, I., Virbickas, E. (2006). *Lietuvos darbo rinkos lankstumas. Pinigų studijos, Nr. 1*. Retrieved from: http://www.ebiblioteka.lt/resursai/DB/LB/LB_pinigu_studijos/Pinigu_studijos_2006_01_01.pdf

Schulten, T. (2014). *Minimum Wage Regimes in Europe – A Nordic Outlook*. Fafo-Report No. 16, February 2014, <http://library.fes.de/pdf-files/id-moe/10558.pdf>