IS MINIMUM WAGE A GOOD POLICY FOR POOR WORKERS IN CROATIA?[*]

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Minimum wage is an instrument of the labour market introduced because of the principle of fairness and dignity for workers who are incapable of covering the basic personal and household needs. Today, the minimum wage policy has gone beyond the economic sphere and has become an economic, social and political issue. In this paper, the authors analyze the profile of the minimum wage worker in Croatia and trends in minimum wage coverage, which is brought into connection with the poverty of workers. The characteristics of minimum wage workers and their status on the labour market are the most significant components in the analysis of minimum wage because this is the starting point in the creation of policy according to the needs of its beneficiaries. One of the aims of the minimum wage is convergence towards the total elimination of poverty among the working population and it is, therefore, a priority to obtain information on the share and profile of poor workers. The analysis pointed out the poor efficiency of the minimum wage policy in the context of decreasing poverty, i.e. increasing the income of poor workers. Therefore, the authors present some alternative instruments which can be seen as complementary to the minimum wage policy. The combination of several instruments enables a more efficient and faster achievement of goals that the minimum wage fails to realize, before all a higher income for poor and low-wage workers. The government needs to be careful in

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designing the minimum wage policy and take into consideration the final aim which is the maintenance of a dignified wage threshold for the vulnerable groups of workers. It would be wise to create a combination of the minimum wage policy, the welfare policy and the fiscal policy with the aim of protecting the vulnerable groups of workers, as well as the unemployed, by stimulating employment, i.e. activity on the labour market.

1. MINIMUM WAGE POLICY IN CROATIA

In the Republic of Croatia, the Minimum Wage Act (hereinafter: MWA) came into effect on July 1, 2008 and it set the amount of the minimum wage, the modality of harmonization and the implementation of surveillance. Before the MWA, the issue of minimum wage was not regulated by law in Croatia but rather by the 1998 National Collective Agreement on the amount of the lowest wage which determined that this amount could not be lower than the lowest base for the calculation and payment of contributions for pension and disability funds.

Until 2003, this lowest base was determined by the Ministry of Finance after which it was determined by the Statutory Insurance Contributions Act and was equal to the product of the multiplication of the average wage for the period from January to August of the previous year and the coefficient 0.35. In 2008, the MWA established that all workers working in the Republic of Croatia have the right to the minimum wage.

The national minimum wage refers to the worker who works full-time, i.e. 40 working hours a week while the workers working less than 40 hours a week, in keeping with the interpretation of the MWA, would have the minimum wage determined in the same ratio to the minimum wage paid for full-time work. Table 1 shows the movement of the relationship of the nominal and real minimum gross wage from 2000 to 2011. The highest increase of the (nominal/real) minimum gross wage is visible in the year when the MWA came into effect and it amounted to 12.5%. In the observed 24 half-years, the nominal minimum gross wage changed nine times with an average semiannual increase of 2.17%.

When calculating the amount of the minimum wage, the existing Act uses the average wage indicator and the GDP growth rates in the previous year. The Croatian Bureau of Statistics (CBS), when calculating the amount of the minimum wage, increases that amount by the GDP growth rate, i.e. it uses the following formula:

$$MW_t = \frac{MW_{t-1}}{\phi W_{t-1}} * (1 + \frac{GDP_{t-1}}{100}) * \phi W_{t-1}, \qquad (1)$$

where:

MW   - minimum wage,
φW   - average wage,
GDP   - growth rate of the real GDP in the previous year,
t   - current year,
t-1   - previous year.

Table 1. Nominal and real gross minimum wage

1 Period (half-year)	2 Nominal minimum gross wage (HRK)	3 Chain indexes (2)	4 Real minimum gross wage (HRK)	5 Chain indexes (4)
2000:1	1,700	-	1,925.25	-
2000:2	1,700	100	1,925.25	100
2001:1	1,700	100	1,853.87	96.29
2001:2	1,700	100	1,853.87	100
2002:1	1,800	105.88	1,931.22	104.17
2002:2	1,800	100	1,931.22	100
2003:1	1,859	103.28	1,960.97	101.54
2003:2	1,859	100	1,960.97	100
2004:1	1,951	104.95	2,015.50	102.78
2004:2	1,951	100	2,015.50	100
2005:1	2,081	106.66	2,081	103.25
2005:2	2,081	100	2,081	100
2006:1	2,170	104.28	2,102.71	101.04
2006:2	2,170	100	2,102.71	100
2007:1	2,298	105.90	2,163.84	102.91
2007:2	2,298	100	2,163.84	100
2008:1	2,441	106.22	2,167.85	100.19
2008:2	2,747	112.54	2,439.61	112.54
2009:1	2,747	100	2,382.48	97.66
2009:2	2,814	102.44	2,440.59	102.44
2010:1	2,814	100	2,415.45	98.97
2010:2	2,814	100	2,415.45	100
2011:1	2,814	100	2,276.53	94.25
2011:2	2,814	100	2,276.53	100

* Inflation indicator is the half year consumer price index (2005=100), which is distributed by half-years (source: Croatian Bureau of Statistics, Statistical Yearbooks).

Source: Research results.

As the average wage is unnecessary in this formula we can conclude that the CBS corrects the minimum wage solely with the GDP growth rate in the previous year. Therefore, the part of the MWA which stresses the share of the minimum wage in the average wage is unnecessary.

If the part on the establishment of the amount of the minimum wage in the MWA ("the share of the minimum wage in the average gross wage realized in the previous year is increased by the percentage of growth of the real GDP in the previous year") is literally translated into a formula which states as follows:

$$MW_t = (\frac{MW_{t-1}}{\phi W_{t-1}} + \frac{GDP_{t-1}}{100}) \qquad (2).$$

This formula is used to obtain the coefficient with which the average gross wage from the previous year should be multiplied in order to obtain the new amount of the minimum wage. However, the part on the multiplication of the average wage with the obtained coefficient is not mentioned in the Act which should be amended so as to unequivocally state the obtainment of the coefficient.

It is the opinion of the authors that the formula described in the MWA should be interpreted in the following way:

$$MW_t = (\frac{MW_{t-1}}{\phi W_{t-1}} + \frac{GDP_{t-1}}{100}) * \phi W_{t-1} \qquad (3).$$

An additional vagueness in the Act is the interpretation of the growth rate of the real GDP in the previous year which can have a positive and a negative sign, but in the end the negative growth rate of the real GDP is ignored in the calculation. For example, in 2009 the growth rate of the real GDP was -5.9% which was not taken into consideration when calculating the minimum wage and the same was done in the following periods.

In the last 10 years, the amount of the minimum gross wage has been relatively stable compared to the GDP per capita and the GDP per worker, while the share in the average gross wage indicates greater variations, as shown by Figure 1.
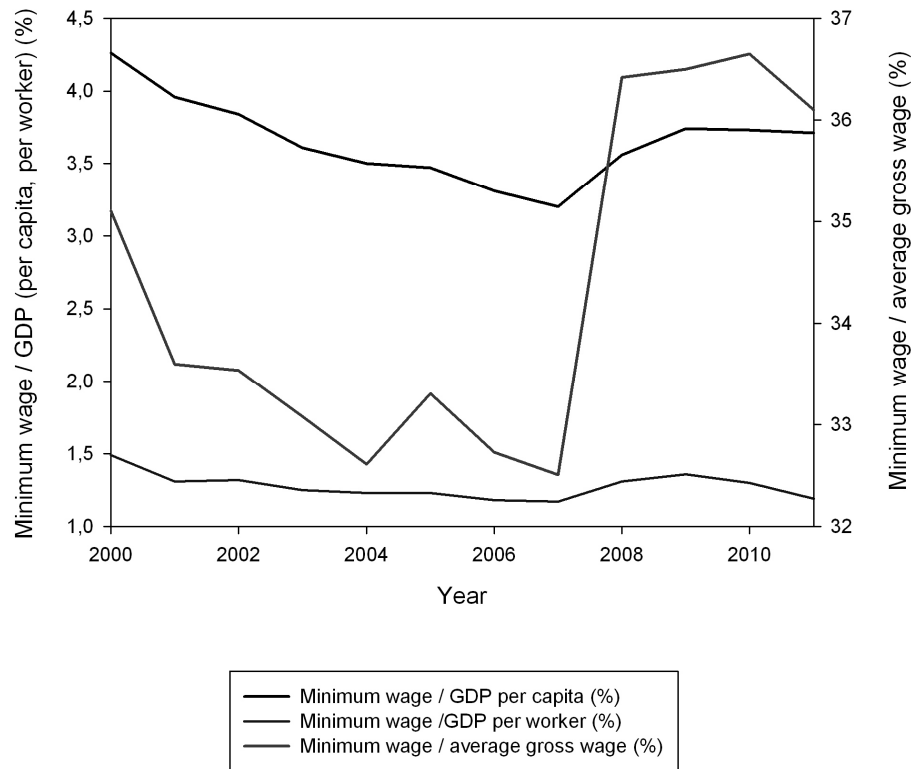
*Figure 1. Minimum wage as a share of GDP per capita, GDP per worker
and average wage*

Source: Authors' calculation.

In 2000, the relationship of the minimum wage and the average wage (gross values) was 35.1% with a negative trend up until 2008 when the share was 32.84% after which there was an increase of the share (red line). In 2010, the share of the minimum wage in the average wage was 36.54%. An increase of the share by 9.32% is noticed from the first to the second half-year of 2008.

Within the discussion on the amount and impact of the minimum wage, the crucial question is that of the number of workers who receive the minimum wage in a certain country as well as their profile. Before the MWA came into effect, the share of workers receiving the minimum wage, that is the workers covered by the minimum wage, was around 3% while after the MWA it was

around 8% (Nestić, Rašić Bakarić, 2010: 10). The cross-check of the analysis of coverage by minimum wage was performed on the basis of the data collected with the Labour Force Survey (hereinafter: LFS) for the period between 2000 and 2010. The respondents were asked about the usual net monthly wage or the earnings from their main job. The share of respondents who answered this question is relatively stable throughout the observed period and is between 30% and 35% of the total number of respondents. The minimum wage coverage was obtained by calculating the share of workers who receive the amount of the net minimum wage (the amount of the gross minimum wage decreased by 20%) with the deviation of +/- 2% so as to take into consideration the inaccuracies in answering the survey and the rough calculation of the net amount of the minimum wage. This was a limited sample of workers, i.e. workers, craftsmen and employees working a minimum of 30 hours a week.
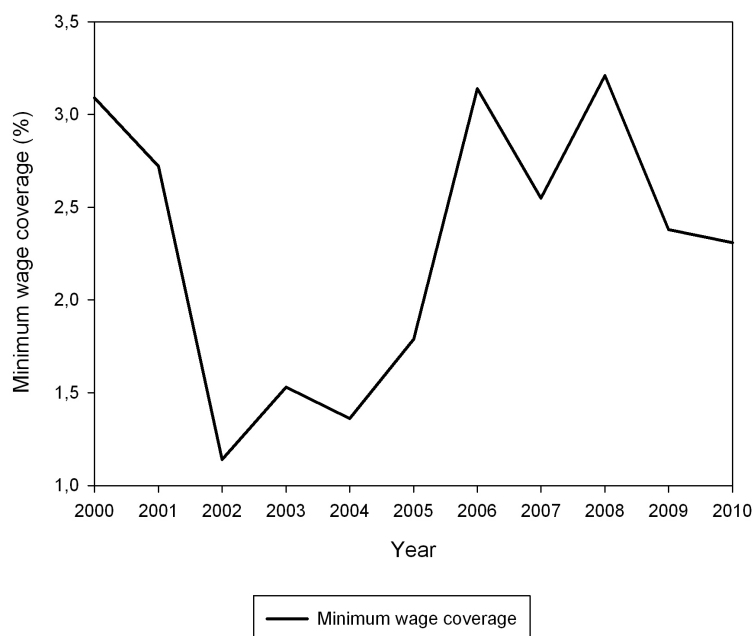

Figure 2. Minimum wage coverage (2000-2010)

Source: Authors' calculation based on the LFS data.

Judging from the conducted analysis, and by using the LFS data, we can see that the minimum wage coverage did not significantly increase after the coming into effect of the MWA and the average coverage from 2008 to 2010 is 2.6%, which should be considered with care considering its methodological

awkwardness. After the MWA came into effect, the Government of the Republic of Croatia estimated that 7.6% of workers would be receiving the minimum wage (Nestić, 2010: 89) which, according to the analysis of the LFS, did not happen.

An additional cause for concern is a very high share of uncovered workers on the Croatian labour market, around 15%. The activities which employ workers receiving the minimum wage, listed according to their representation, are the following: manufacturing industry, wholesale and retail trade, agriculture, hunting and forestry, hotels and restaurants, and construction industry. Although the position of the manufacturing industry is weakening as far as the number of active enterprises is concerned, the number of workers employed, and the share of the total income in economy, it is still the leading activity.

The importance of the wholesale and retail trade activity is growing, so the fact that it is also among the activities paying minimum wages is worrying, along with a large number of uncovered workers. Although these are less educated workers, the economic structure is such that the singled out activities make up for more than 90% of the economy resulting in the issue of low wages, unpaid wages and poor workers becoming a serious social problem.

In February 2013 the government of the Republic of Croatia established the new proposal of the MWA according to which the value of the minimum wage would be established in relation to the indicators that are more "socially sensitive". It is the monthly poverty risk threshold for a single member household, the coefficient of the total number of inhabitants and the total number of households, the coefficient of the total number of inhabitants and the number of active population and the change of the average index of consumer goods prices. However, regardless of the fact that the new Act foresees an increase of the minimum wage by 6.07% in relation to the existing value, it is predicted that there will be lower minimum wages from the legally established national level, which will be established through collective agreements with the maximum difference limited to 25%.

2. MINIMUM WAGE POLICY IN CROATIA IN COMPARISON TO OTHER COUNTRIES

Forms for minimum wage establishing vary in European Union according to the observed country. In January 2013, 20 out of 27 countries had minimum wage which is set by national legislation or by national intersectoral agreement.

There are differences in the level of the monthly minimum wage by member states ranging from 138,05 euros in Bulgaria up to 1,801.49 euros in Luxembourg (ratio 1:13) where the differences are somewhat less if it is addressed in terms of purchasing power parity (PPS) wherein the ratio of 1:5.6 indicates the difference between 273,86 PPS in Romania and 1,524.21 PPS in Luxembourg. Table 2 shows the relationship between the levels of the minimum wage among selected countries in terms of purchasing power parity. Table 2 shows the difference between the minimum wage levels among selected countries in terms of PPS.

Table 2. Monthly minimum wages - 2nd half-year (in Purchasing Power Standard)

	2009:2	2010:2	2011:2	2012:2
Belgium	1,235.33	1,245.85	1,296.17	1.326.54
Bulgaria	239,18	241,64	241,64	300,37
Czech Republic	413,98	420,79	420,79	454,14
Estonia	363,29	371,85	371,85	410,76
Ireland	1,153.93	1,227.38	1,227.38	1,256.69
Greece	908,66	907,36	921,88	715,09
Spain	744,43	761,51	771,25	770,07
France	1,190.56	1,213.03	1,232.19	1,293.59
Latvia	335,40	351,75	390,83	383,92
Lithuania	343,94	355,96	355,96	352,30
Luxembourg	1,392.02	1,431.29	1,458.47	1,456.09
Hungary	402,11	411,00	436,16	517,28
Malta	810,11	846,66	853,12	872,80
Netherland	1,297.28	1,316.55	1,334.40	1,345.18
Poland	506,40	532,98	560,91	613,58
Portugal	588,65	628,66	641,89	649,90
Romania	245,67	242,29	270,56	273,86
Slovenia	688,42	868,28	884,78	889,07
Slovakia	401,26	429,54	442,52	451,90
Great Britain	1,101.67	1,111.97	1,137.56	1,134.44
Croatia	507,81	508,58	508,58	516,16
Turkey	504,76	534,44	588,20	627,74
United States	917,35	1,026.57	1,026.57	1,023.66

Source: Eurostat Statistics
(http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database, 24th June 2013).

Variability can be seen in the level of the minimum wage as well as all other economic and social indicators (differences in skills, productivity, living standards and public policies) which confirms the fact that the European Union is an association of highly heterogeneous group of countries. The Republic of Croatia would fall under the category of countries with the minimum wage

around 500 PPS. That group of countries includes Czech Republic and Hungary.

3. RECIPIENTS OF MINIMUM WAGE AND THE POVERTY OF WORKERS IN CROATIA

3.1. Who are minimum wage workers?

The recipients of minimum wage and their status on the labour market are the most important components in the analysis of the minimum wage because it is the starting point in the creation of a policy according to the needs of the beneficiaries. According to the theory of social welfare (Pareto's law) the optimal situation is when a group can be made better off without making any other group worse off. In terms of minimum wage recipients, as one of the tools of social (and economic) justice, the increase of minimum wage is optimal/efficient if it brings benefits to one group of workers while not harming another. Still, there is a large number of researches that do not confirm this principle because it is often thought that there is a wage increase for better paid groups of workers or an increase of employment of workers with higher education, while those who are worse off are low wage workers and those with little education.

The question is (Neumark, Wascher, 2008: 290) how the society will determine the welfare function and value the winners or losers in the minimum wage story. If the number of minimum wage recipients in activities that are not so important for the economy is small, the "losers", i.e. the vulnerable groups could achieve greater economic and social benefit with alternative instruments which are more efficient in achieving the goals of the minimum wage policy.

The minimum wage recipients were analyzed on the basis of the LFS data for the period from 2000 to 2010 and were distributed in three groups:
* workers earning +/- 10% of the minimum wage (covered workers),
* workers earning below that level (uncovered workers),
* workers earning + 20% to 30% of minimum wage (low wage workers).

The reasons for such distribution of workers are the methodological limitations of the LFS, i.e. the potential inaccuracies in the answers of workers on questions of the amount of their net wage for the main job. These groups of workers include workers earning the minimum wage (covered workers), workers earning a wage below the level of the minimum wage (uncovered workers) and the low wage workers who can be affected by the increase of the

minimum wage and are in the low part of wage distribution. The groups are set in order to notice the differences between them as well as trends within single groups of workers. Table 3 shows the characteristics for the second half-year of 2010 for reasons of actuality of data and the comparison of groups[1].

Table 3. Characteristics of low paid workers (in %) relative to all the workers interviewed in LFS

Characteristic	Uncovered workers	Covered workers	Low wage workers
Share of urban population	14.5	35.8	37
Share of the heads of households	40.7	25.2	33.9
Share of women	55.5	66.5	52
Share of highly educated	1.3	0.6	0.4
Share of young workers (20-24 years)	4.1	12.6	12.2
Share of employed (dependent) workers	22	92.6	93.7
Share of craftsmen	2.1	1.9	3.1
Share of farmers	67.7	4.5	1.6
Share of workers employed on contracts of indefinite duration	70.5	74.6	80.7
Share of workers working 40 hours per week	25.9	58.7	62.2
Share of workers working overtime	30	38.4	36.6
Share of workers with extra job	1.8	5.5	5.9
Share of workers registered at the Croatian Employment Service	13.9	1.9	-
Share of workers willing to change their main job	19	18.7	11.8
Share of workers who rate their household financial situation as poor	73.4	74.4	68.6

Source: Research results based on LFS data.

Among the uncovered workers (informal sector), the majority are agricultural workers, rural population, women who make up for more than 50% of this category and the majority works part-time. Within this group of workers, the majority would want to change jobs and see their household finances as

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[1] Additional data is available from the authors.

poor or very poor. Approximately 14% of uncovered workers are registered at the Croatian Employment Service as unemployed people.

The group of workers earning the minimum wage is made mostly of women, they reside mainly in the rural areas and most of them are employed in enterprises, a small percentage works part-time, a quarter would change their main job and they mostly see their household finances as poor or very poor, as well as the uncovered workers. A more detailed analysis of covered workers in the observed 11-year-period reveals a growth of the share of rural population and a decrease of the share of the heads of households as well as an increase in the share of women. Throughout the period, the majority of workers in this group, between 60% and 65%, has elementary school, vocational school or school for skilled and highly skilled workers education. Most respondents in this group work in small enterprises with up to 10 employees. Within the working hours category, there is a change in the pattern of overtime in favor of standard working hours, so that, for example in 2000, 56.1% of workers worked overtime and 38.5% worked 40 hours a week, while in 2010 the situation was reversed.

However, regardless of that fact, throughout the period between 10% and 12% of workers would like to work more. A vast majority always or sometimes works Saturdays and half respondents work in shifts. An analysis of covered workers according to activities shows that traditionally a third of the workers is employed in the manufacturing industry while the structure of the rest of the group is changing with time so that there is a growth of workers in construction (21.5% in 2000 and 45.2% in 2010) and a decrease of the share of workers employed in agriculture, hunting and forestry.

As for enterprises paying minimum wage, these are mostly small agricultural enterprises with up to 20 employees (50% of workers belong to this category of enterprises) in which a quarter of workers is temporary employed, mostly up to 6 months and only 34% of workers in 2010 realized all the rights arising from employment while this share was considerably lower in 2004 and amounted to 20%. Most workers always or almost always work Saturdays and Sundays and half work in the evenings.

The instrument of minimum wage covers a small share of workers compared to the total population of workers and we are speaking here of workers from the vulnerable groups on the labour market. The analysis of characteristics of covered workers and the activities that employ them inspires a discussion on the efficiency and point of the minimum wage considering the

wider span of the labour force structure in Croatia at which the context of the minimum wage is lost. Less than 25% of workers in Croatia have an education lower than secondary school[2] with a growing trend, i.e. the workers in Croatia are becoming more educated.

Since the minimum wage covers mostly skilled and highly skilled workers, even if there are positive effects of the minimum wage on the economic and social welfare of the workers, they are insignificant in practice considering the small share of skilled and highly skilled workers[3] in the total number of workers (11.49%).

Although the most frequent criterion against raising the minimum wage is the consequential increase of unemployment, according to Eyraud and Saget (2005: 48) this argument is not plausible because the enterprises which are not capable of paying the minimum wage will cease their activity in the long run and the low wages should not be used with the aim of achieving greater competitiveness. Another interesting standpoint on such enterprises is the one by Figart (2004: 2) who says that the entrepreneurs employing low educated workers and paying the minimum wage are either social parasites or morally questionable.

In the analysis of the employers, Lemos (2004: 250) differentiates the informal and the uncovered sector. In the uncovered sector the minimum wages are not paid at all while they are paid in the informal sector but the enterprises do not comply with the other aspects of the work contract like the payment of contributions, paid vacation and similar.

The share of covered workers realizing all the rights arising from employment in 2010 was 94.8% while in 2004 that share was 80%, which indicates a decrease of the informal sector in Croatia. The size of the uncovered sector cannot be determined with the analysis of the share of uncovered workers in the total number of workers who have been included in the survey, which is shown by Figure 3.

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[2] Data on March 31, 2011 point at the following situation: 19.79% of workers have high education, 8.36% higher education, 48.37% secondary education, 2.95% low education, 1.88% are highly skilled workers, 9.61% skilled workers, 2.23% semi skilled workers and 6.81% unskilled workers. (Source: Croatian Bureau of Statistics - 2012 Statistical Yearbook).

[3] Secondary school education is excluded. Skilled and highly skilled workers refer to workers who finished a school for craft and industrial occupations, or a school for skilled manual workers.
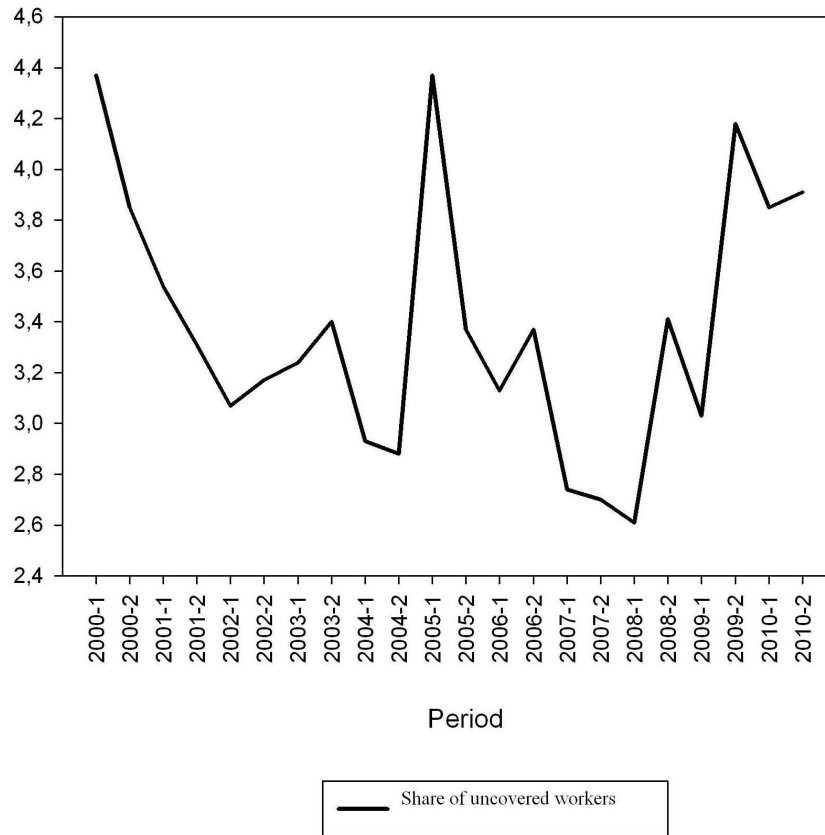
Figure 3. Size of uncovered sector*(%) in the total number of workers
(unrestricted sample)

Source: Research results based on the LFS data.

Note: Uncovered sector refers to workers who earn lower wage (lower than 90% of minimum wage) in comparison to minimum wage.

The size of the uncovered sector did not change in the period from 2000 to 2010, regardless of the fluctuations throughout the period. In 2008 there is an increase of the share of uncovered workers which reached the highest share of 4.37% in the second half-year of 2009. The share of low paid and uncovered workers in the total number of workers goes from 3.5% to 8.5% in the observed period. Is the minimum wage alone capable of improving their status on the labour market? The introduction of the MWA and the increase of the value of the minimum wage influenced the increase of the size of the uncovered sector

which indicates that the implementation of the minimum wage policy affects the increase of the informal sector implying a degradation of the status on the labour market for affected workers and the need for a more active role of the social policy, that is the social welfare policy because these are workers who are unable to cover the basic living expenses.

According to Eyraud and Saget (2005: 108-109), there is a larger possibility of violation and non-observance of law in small, work-intensive enterprises in case of an increase of ratio between the minimum and average wage because it is an attempt to lower the expenses of work, however, it only partially explains the non-observance of law. The ignorance of the level of the minimum wage, a lack of control and participation in the negotiation process of social partners as well as the asymmetry of power between the employer and the employees play an important role in that process. It is necessary to strengthen the institutional process of the establishment of the minimum wage, the labour inspection and the organization of activities which are not adequately presented as equal social partners.

3.2. Are minimum wage workers poor?

The definition of poor workers differs depending on the source (institution or country) so that poor workers can be defined as low paid workers or persons whose wage is lower than two thirds or 66% of the median wage of workers employed full-time or 60% of the average/median wage (Vaughan Whitehead, 2010: 34-35).

One of the goals of the minimum wage is convergence towards the total elimination of poverty among the working population and it is, therefore, a priority to obtain information on the share and profile of poor workers. Most studies indicate that not many workers who earn the minimum wage actually live in poor households so that most economists agree in saying that the minimum wage has a weak impact on the lowering of poverty. Also questioned is the purpose of the minimum wage in case it is meant for workers who are not poor and relatively well protected. In that case, the future and role of the minimum wage change because its social character is lost and it becomes a point of reference for higher economic goals in the sense of policies (industrial policy, educational policy, wages policy). The minimum wage loses its role of an instrument on the secondary labour market. Most authors noticed that workers earning the minimum wage are equally distributed across all deciles of the family income distribution (Neumark, Wascher, 2008: 146), which means

that the benefit arising from the minimum wage increase exists across the whole income distribution, which in the end does not lower the inequality of income.

Figure 4 shows the movement of the minimum and median wage with a mark of the 66% of value of the median wage as the poverty limit according to the definition of poor workers.
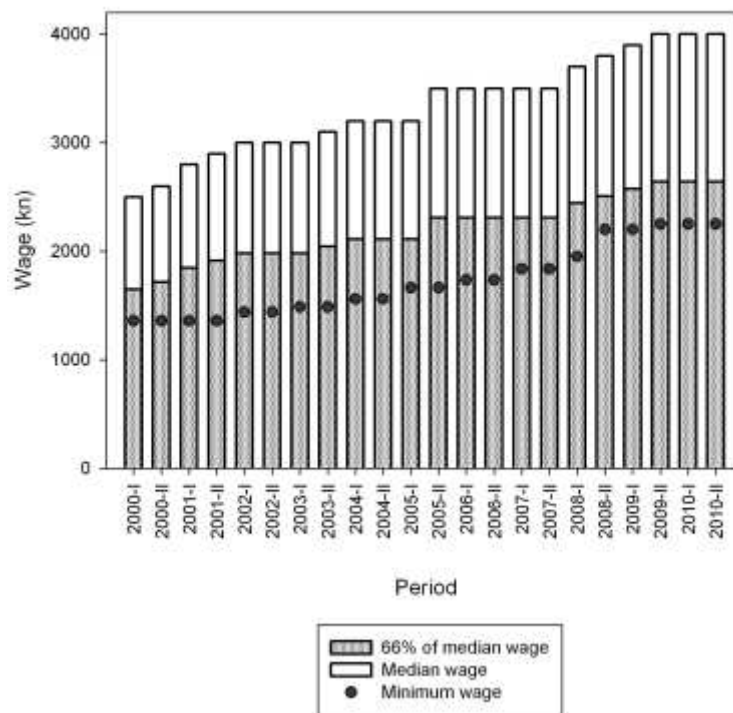

Figure 4. Minimum wage, median wage and 66% of median wage (2000-2010)

Source: Research results, based on the LFS data.

It is visible that the minimum wage is below the level of 66% of the median wage throughout the whole observed period, this being the possible level for the establishment of poverty of workers. It is therefore clear that the minimum wage cannot be an efficient tool in the struggle against poverty in case this definition of poor workers is accepted. A second possible definition of poor workers, which is statistically determined, is the poverty risk threshold which amounted to 25,200 HRK for a single member household in the Republic of Croatia in 2010 (CBS, Statistical Yearbook 2012: 194) that is 2,100 HRK per

month which remains below the minimum wage. According to this indicator, speaking in terms of the minimum wage, all workers employed full-time in Croatia and earning the minimum wage are at the same time poor workers.

In Croatia in 2004, only 4% of persons with paid employment belonged to poor households as opposed to 34% of unemployed, 25% of retired people, 29% of non-active persons (Nestić, 2010: 92-93), which indicates that in Croatia the minimum wage has little effect on the decrease of poverty. Following this hypothesis, we analyze the profile of poor workers and not households because of the methodological limitation of the set of data. The analysis of poor workers in Croatia is based on LFS data. Out of all the employed people included in the research, we singled out those earning up to 66% of the median wage. Table 4 shows singled out results for the first and last half-year of the analysis in order to spot the changes through time[4].

Among the poor workers the majority are middle-aged women. The share of poor workers in the total number of the employed in the observed period is almost two times less, 9.3% in the second half-year of 2010. The change in the structure of the economy influenced the change in the structure of poor workers employed in single activities so that there is an increase of poor workers employed in agriculture (half of the poor) and the wholesale and retail trade. In time, agriculture registers decreasing growth rates of its share in the GDP structure while the wholesale and retail trade activity continuously holds the share of 11%.

Table 4 shows that in the total number of poor workers half earns a wage below the minimum wage (uncovered workers), which is yet another proof that minimum wage does not fulfill its goal of eradicating poverty and it is evident that the non-observance of the MWA in Croatia is an important problem.

A descriptive analysis on a pattern of covered and uncovered poor workers[5] reveals the dynamics of (non)payment of the minimum wage in various activities throughout the observed period. In this case, the median wage was calculated through the LFS by which the group of poor workers was determined. Figure 5 shows the share of covered and uncovered workers in the total number of poor workers.

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[4] Additional data is available from the authors.

[5] Poor workers (according to the OECD definition) are those workers whose wage is less than two thirds (66%) of the median wage of workers employed full time.

Table 4. Characteristics of low paid workers (in %) relative to all the workers interviewed in LFS

Characteristic	2000, 1st half-year	2010, 2nd half-year
Share in the total number of workers	16.7	9.3
Average number of working hours per week	42.43	42.03
Share of workers working overtime	58	36.7
Share of women	59.6	64.7
Share of highly educated workers	0.7	1
Share of teenagers (15-19 years)	1.7	2.6
Share of young workers (20-24 years)	15.1	11.8
Share of older workers (over 55 years of age)	4.4	5.5
Average working experience	15	13
Share of workers who earn below the minimum wage	34.8	45.6
Share of covered poor workers	20	27.3
Share of workers working in agriculture	43.1	51.8
Share of workers employed in manufacturing industry	22.5	16.7
Share of workers employed in retail	13	21.8

Source: Research results based on the LFS data.

The share of covered workers in the total number of poor workers has grown in time[6]. Coverage of 20% in 2000 grew to 27.34% in the second half-year of 2010. The lowest share of coverage is noticed in 2002 when it amounted to only 6% (18% of workers were uncovered). What can be noticed in the observed period is the increase of uncoverage of poor workers, i.e. from 34.8% in 2000, their share increased to 45.6% in 2010.

The average growth rate of the median wage (2.3%) is lower than the average coverage growth rate (7.19%) and uncoverage (14.10%) of workers with the minimum wage as well as the growth of the minimum wage (2.48%) for the observed period, which means that the cause of the growth of (un)coverage cannot be the substantial increase of the median wage which is an indicator for the determination of the poverty threshold (66% of the median wage), but rather the cause should be looked for in the amount of the minimum wage.

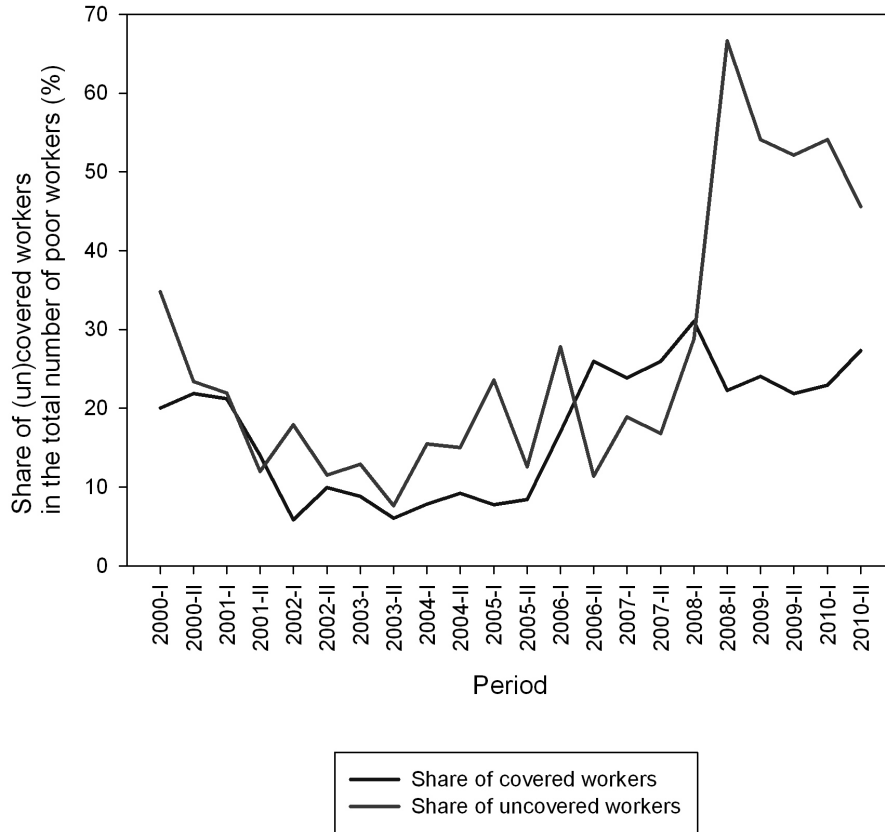[6] Additional data is available from the authors.

Figure 5. Share of covered and uncovered workers in the total number of poor workers

Source: Research results.

Note: Covered workers are those who earn minimum wage while the uncovered workers are those who earn below the minimum wage.

The MWA came into effect in the second half-year of 2008, when the minimum wage increased by 12.7%, while the median wage increased by only 2.7%. However, in this period there was an enormous increase of uncovered workers and a decrease of the share of covered workers, which means that the increase of the minimum wage influenced a spillover of workers from the covered to the uncovered sector.

Table 5. (Un)coverage and median wage growth rates (%)

Period (half-years)	Uncoverage (%)	Coverage (%)	Median wage growth rate (%)
2000:2	-32.76	9.30	4
2001:1	-6.41	-2.88	7.69
2001:2	-45.21	-34.06	3.57
2002:1	49.17	-58.43	3.45
2002:2	-35.75	70.96	0
2003:1	12.17	-11.46	0
2003:2	-41.09	-30.99	3.33
2004:1	103.95	28.13	3.23
2004:2	-3.23	17.97	0
2005:1	57.33	-15.56	0
2005:2	-46.61	8.51	9.38
2006:1	120.40	101.90	0
2006:2	-58.95	52.53	0
2007:1	65.79	-8.14	0
2007:2	-11.11	8.94	0
2008:1	71.43	19.46	5.71
2008:2	131.25	-28.19	2.70
2009:1	-18.77	8.04	2.63
2009:2	-3.70	-9.06	2.56
2010:1	3.84	4.89	0
2010:2	-15.71	19.18	0

Source: Research results.

4. INSTRUMENTS ALTERNATIVE TO THE MINIMUM WAGE POLICY

The political support to the minimum wage policy largely depends on the relations of power in society. Sara Lemos (2004: 225) noticed that the social role of the minimum wage policy, i.e. its popularity, is tied to populist governments, strong unions and periods of low inflation, which actually indicates the possibility to advocate and promote the policy on a national level. The predilection for a specific design of the minimum wage indicates the political climate, the economic cycle and the influence of the unions. Klein and Dompe (2007) confirmed that argument in their research. They conducted a survey among economists/signatories of the open letter which advocated the increase of the minimum wage. In the survey the economists addressed two categories of mechanisms generating benefits – the mechanisms of the labour

market and wider socio-political mechanisms connected to the personal freedom of the workers. All the respondents acknowledged the important role of the political factors. Peter Dorman (Klein, Dompe, 2007: 155) explained it best with the division in "negative" and "positive" freedom. The negative freedom refers to the expense of the society due to the increase of the minimum wage on unregulated markets where the implementation of laws is questionable while the positive freedom refers to positive benefits for subjects at which the democratic environment plays the most important role.

It is held that the instrument of the minimum wage is the optimal labour market tool for a state, applied because there are no direct expenses considering that they are shifted to the employers. With the minimum wage increase, the employers will allocate larger amounts for the payment of contributions which is a positive aspect for the state. However, although it may seem that the role of the state is irrelevant and that there are no expenses due to the minimum wage increase, there are indirect effects of the minimum wage that can disturb the balance on the labour market in the long run, which can later on contribute (Knabe, Schöb, 2008: 19) to an increase of state expenses though social allocations (welfare assistance measures). The minimum wage increase can result in the layoff of workers which, along with probable difficulties in finding new jobs, might discourage the workers and make them passive subjects under the social protection of the state. Thus, the minimum wage does not fulfill the aim of protecting the vulnerable groups on the labour market, on the contrary, it might result in an increase of the number of vulnerable subjects. The state needs to be careful in designing the minimum wage policy, taking into consideration the final goal, i.e. the maintenance of a dignified threshold of wages of the most vulnerable groups of workers. The general wages policy and the social welfare policy are not synonyms to the minimum wage policy. According to Robert W. Wassmer (Klein, Dompe, 2007: 147), a successful public policy demands the keeping of balance between efficiency and equality. If one larger group of workers becomes better off at the expense of a smaller group of workers who are made worse off, the good effects do not eliminate the bad ones.

Although Neumark and Wascher (2008: 283) question the hypothesis that the minimum wage is given political support because of the ideological need to help low income families, it should be stressed that the ideological and political background of the minimum wage is stronger than the economical. However, according to Dorman (2010) "the ideological thinking typically means putting on only one set of glasses and disregarding other points of view. Non-ideological thinking means being able to live with contradictions." The non-ideological consideration of the minimum wage policy has to be stressed, taking

into consideration the economic, political and social aspect of this issue as well, in order to be able to contemplate the complex and often contradictory relations and implications of the policy.

When designing the minimum wage policy the first thing is to identify the goals. Although the adversaries of the minimum wage increase often use the argument of negative consequences, there is evidence that the minimum wage has no concrete practical effect (positive or negative) which indicates a limited reach of the minimum wage policy in solving problems on the labour market. When defining the problems that ought to be eliminated with the minimum wage policy, it is essential to clearly set the boundaries within which a single instrument can be effective. According to Godard (2001: 59), the decrease of poverty and inequality should be a secondary goal of the policy, while the primary goal needs to be wage fairness (reflecting in the potential value of work) and the benevolence towards the workers (the workers should be able to participate in the community with dignity). A question arising spontaneously is that of efficiency and enforceability of the minimum wage policy and whether there are alternative instruments that could complete (complementary measures) or even substitute the minimum wage policy.

Several instruments, regarding both offer and demand, are mentioned in literature along with the minimum wage as having similar or equal goals, among which are the following:
- state wage subsidies or introduction of tax deductions (*WOTC* or *Work Opportunity Tax Credit*),
- aid programs for employers,
- additional aid programs for workers,
- increase of the non-taxable base for single groups of workers,
- foundation of a council for the establishment of wages and training,
- tax programs for workers (*EITC* or *Earned Income Tax Credit*).

The state wage subsidies are intended for an increase of employment and a direct increase of wages through a decrease of the cost of work for employers. Knabe and Schöb (2008: 33) think that *"a minimum wage is an inferior policy to wage subsidies. If the government is willing to spend the same amount of money directly on wage subsidies that it would otherwise have to spend indirectly to finance the cost of minimum wages through higher expenditures on unemployment and welfare benefits, it could achieve more favorable employment and income effects."* In some states, like France, both measures are implemented at the same time (Figure 6), but, according to Knabe and Schöb, it

would be more efficient if the government abandoned plans to install minimum wages and focused instead on a policy to subsidize low-paid jobs directly.
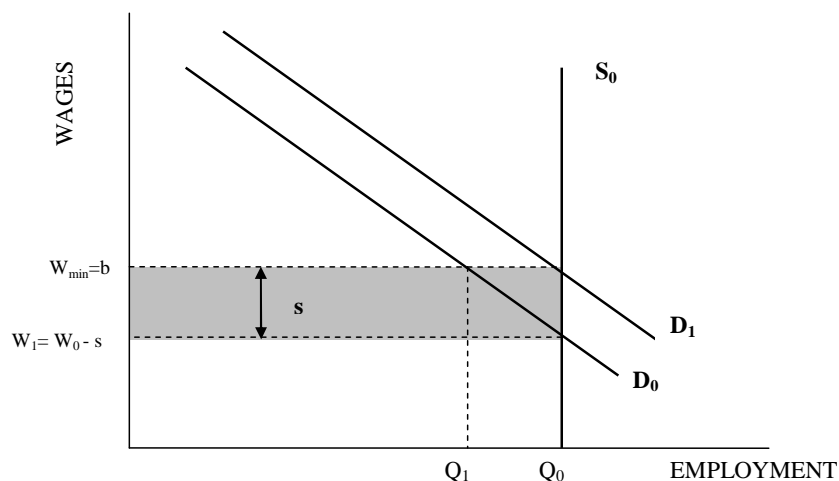

Figure 6. Minimum wage and subsidizing wages

Source: Revised according to Knabe and Schöb (2008: 27).

It is assumed that there is a decreasing demand for work (D_0) and a fixed offer of work (S_0) on the level of full employment (Q_0). The net wage that the employer pays to the worker is marked with W_0 while the minimum wage (W_{min}) is established on the level of the wage necessary for a living and marked with *b* (*subsistence income*). The full employment can be realized through the payment of wage W_1 which is below the level of the minimum wage and the subsistence minimum, while at the level of the minimum wage, there is a higher wage but no full employment, which is dropping from Q_0 to Q_1. The full employment can be realized again with the intervention of the state through subsidies marked with *s*. If there is a legal minimum wage, the state subsidy is paid directly to the employer in order to stimulate the employment effect. The curve of the demand for work moves to D_1 for the amount *s*. The expense of the employer will be at the level of W_1. Therefore, the subsidy of wages neutralizes the negative consequences of the minimum wage on employment.

Tax deductions for employers can be targeted in order to lower the cost of work for employers employing low wage workers and other vulnerable groups of workers, which would result as an additional motivation for employment. An example on the Croatian labour market is the exemption from paying

contributions to the wage of workers employed for the first time since young workers belong to a vulnerable group of workers and are often in the lower part of wage distribution.

The aid program for employers, according to Godard (2001: 40), refers to assistance in finding and distributing information important for employers, usually those in small enterprises with serious difficulty in adjusting to the changes of the minimum wage policy. The experience and knowledge of other employers can contribute to the preparation and faster adjustment of small and medium enterprises.

Additional aid programs for workers refer to specific measures like (Employment Policies Institute, 2009) food coupons, accommodation vouchers, health insurance for needy adults and children (*Medicaid* is an example in the US) or Temporary Aid for Needy Families. There are criteria that have to be met for the assignment of food coupons. These are mostly legal (citizenship, legal migrants, possession of a personal ID number and similar) and economic criteria (set income threshold that a household or individual do not surpass). Accommodation vouchers refer to financial help for individuals that do not have the means to pay rent. Medical care programs can also be designed for people with low wages, like Medicaid in the which is intended for groups including people with special needs, children, the elderly, pregnant women and poor workers. Temporary aid for families refers to finances given to families so they could reach a level of self-sufficiency and increase their active search for work. These programs exist for the most vulnerable groups of workers in order to offer direct help, which totally excludes the possibility to help the middle class of workers.

Increase of non-taxable basis for some groups of workers, i.e. the increase of the personal tax deduction. On the example of the Croatian labour market it would mean an introduction of a factor for low wage workers. According to Godard (2001: 40), this would increase the income after taxation but it would not be efficient due to the loss of state income and therefore, in the long run, less funding in the context of social policy which probably gives more benefits to poor and low wage workers than the minimum wage itself.

The foundation of a council for the establishment of wages and training per activities, as it was originally organized in the beginning of the concept of the minimum wage, relates to decentralizing negotiation on the minimum wage and establishing independent bodies on the level of activities that would determine the amount of the minimum wage as well as the level of training for

single groups of workers. This would result in differences of the amounts of the minimum wage but it would, before all, depend on market criteria (demand for work, changes in the preferences of the consumers, competition) and political criteria (negotiating power of the council compared to the power of the employer). There are countries in the EU that do not have a legal minimum wage but the minimum wage is rather established through the process of collective negotiation on the level of activity or even single professions. Although the idea of the foundation of individual councils for each activity that would periodically establish the amount of the minimum wage is good, there are ample possibilities of manipulation, non-transparency and increase of inequality on the labour market.

Tax programs for workers (Earned Income Tax Credit or EITC) are instruments most frequently cited in literature as the alternative to minimum wage. It is about an income tax refund for low wage families with or without children. It was primarily introduced to lower the expense of social contribution for the state so as to directly increase the income of vulnerable families. The maximum income a family can have to apply for a tax refund is established by law and it increases considering the family status, i.e. the number of children.

In the US, EITC is categorized as a state tool in the struggle against poverty and the creation of dignified work but although it indicates a more efficient result compared to the minimum wage, it cannot substitute it completely. It is an instrument focusing on the neediest people on the labour market. Since only a small number of poor people are really permanently employed, the EITC does not eliminate the problem of poverty, nor does the minimum wage. The EITC and the minimum wage should be combined because *"the efficiency of the EITC in increasing the income of poor workers above the poverty threshold depends on the regular increase of the minimum wage. The EITC, as well as the poverty line, keep growing throughout the years to keep the pace with growing costs of life, which is not necessarily the case of the minimum wage. However, the EITC alone cannot enable families to stay above the poverty line."* (Economic Policy Institute, 2008: 12)

5. CONCLUSION

Although the minimum wage is not the most efficient instrument, it cannot be concluded that it is not efficient at all because there is a question of consequences of a situation in which the minimum wage would not exist. The primary goal of the minimum wage should be the protection of the most vulnerable groups of workers on the labour market by ensuring a fair wage.

Although in different countries there are various combinations of the minimum wage policy and other instruments, there is no universal answer on how to best use or combine these policies. The instruments of social and fiscal policy, used as complements or substitutes of the minimum wage policy, can neutralize negative social consequences. The minimum wage policy is a policy of the labour market (employment policy, policy of a general level of wages in economy) while the problem of poverty should be in the domain of other instruments. The wages policy before all realizes economic goals like attracting foreign investments and higher economic growth rates resulting in an indirect achievement of social goals through the increase of income for workers and the strengthening of the concept of dignified work. In the end, it can be concluded that it would be wise to create a combination of the minimum wage policy, the policy of social welfare and fiscal policy in order to create complementary goals like the protection of vulnerable groups of workers as well as the unemployed who are fit for work by stimulating employment, i.e. activity on the labour market.

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JE LI POLITIKA MINIMALNE NADNICE POVOLJNA ZA SIROMAŠNE RADNIKE U HRVATSKOJ?

Sažetak

Minimalna nadnica je instrument tržišta rada, uveden zbog principa fer tretmana i dostojanstva radnika, koji ne mogu zadovoljiti temeljne osobne i obiteljske potrebe. Danas je politika minimalne nadnice izašla izvan ekonomske sfere i postala ekonomskim, ali i društvenim te političkim pitanjem. U ovom se radu analiziraju profil radnika – primatelja minimalne nadnice u Hrvatskoj te trendovi u pokrivenosti pravom na minimalnu nadnicu, koje se povezuje sa siromaštvom radnika. S obzirom da se uzimaju kao početne točke za politiku usmjerenu prema potrebama primatelja, karakteristike i status radnika na koje se odnosi minimalna nadnica smatraju se najznačajnijim čimbenicima analize. Jedan od ciljeva minimalne nadnice je konvergencija prema potpunom uklanjanju siromaštva među radnom populacijom, zbog čega se prioritetom smatra prikupiti informacije o udjelu i profilu siromašnih radnika. Analiza ukazuje na lošu učinkovitost politike minimalne nadnice u kontekstu smanjenja

siromaštva, odnosno povećanja prihoda siromašnih radnika. Stoga autori prikazuju neke alternativne instrumente, koji se mogu smatrati komplementarnim politici minimalne nadnice. Kombinacija više instrumenata omogućuje učinkovitije i brže postizanje ciljeva, koje ne omogućuje isključivo minimalna nadnica, a što se, prvenstveno, odnosi na veću razinu dohotka za siromašne i radnike s niskim primanjima. Vlada bi trebala biti oprezna prilikom izrade politika minimalne nadnice i uzeti u obzir njezin krajnji cilj – održavanje praga dostojanstvene nadnice za ranjive grupe radnika. Bilo bi mudro kreirati kombinaciju politike minimalne nadnice, socijalne i fiskalne politike, s ciljevima zaštite ranjivih grupa radnika i nezaposlenih osoba (koje treba stimulirati za zapošljavanje).