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Material deprivation and employment status in post-transition: Evidence from North Macedonia[1]

Abstract

Poverty and social exclusion are often associated with unemployment, but being employed is not always sufficient to provide decent living conditions for workers and their families. In this context, the aim of this article, drawing on SILC micro data, is to assess the underlying causes of severe material deprivation in North Macedonia from the point of view of employment status, particularly the differences between employed and unemployed workers. The results show that employed workers face a much greater risk of severe material deprivation if they are positioned in the so-called secondary labour market; while the unemployed with low capital accumulation and those living in households with low work intensity face the highest risks of all. North Macedonia's adjustment mechanisms do help cushion the consequences, but the article concludes with several policy recommendations for additional action to reduce severe material deprivation covering: education and training; active labour market policies; unionisation and collective bargaining; wage subsidies and taxation; and a statutory minimum wage.

Keywords: *material deprivation, labour market, employed, unemployed, low pay, in-work poverty, collective bargaining*

Introduction

Poverty and social exclusion are often associated with unemployment, but being employed is not always sufficient to provide decent living conditions for workers and their families. 'Low wage' workers, similarly to the unemployed, are often associated with an image of men and women struggling to support their families and living on the edge of poverty and social exclusion. The Republic of North Macedonia is positioned among those European countries with the lowest level of workers' wage compensation and, consequently, it scores on average much lower regarding indicators of poverty and social exclusion *vis-à-vis* more developed EU countries. In these circumstances, it is a challenging task to reveal the potential implications of unemployment compared to low-paid employment for the various poverty indicators including material deprivation.

1 This work was supported by a grant from the Open Society Foundation within the framework of the Scholarship Programme 'Civil Society Scholar Awards 2017-2018'. The author wishes to express his gratitude to Professor Claus Schnabel for his helpful suggestions and the provision of extraordinary conditions during a research stay at the School of Business and Economics of Friedrich-Alexander-Universität, Erlangen-Nürnberg.

Apart from creating hardship for workers and their families, unemployment as well as low-paid work imposes a financial burden on countries' welfare systems. The costs of improving the living conditions of vulnerable segments encompass unemployment benefits, the costs of activation programmes and social assistance as well as other cash transfers. In addition, the administration of all these programmes requires a complex system of social assistance which is associated with sizeable government spending. For instance, the current social assistance system in North Macedonia is fragmented, consisting of many types of programmes rather than one single comprehensive one, while the total spending on social assistance is about 1 per cent of GDP (Petreski and Mojsoska-Blazevski 2017).

Most former socialist countries have substantially reduced the initially high levels of unemployment they experienced after transition but, during post-transitional development, they are still struggling to attain satisfactory wage levels. Decent work means opportunities for everyone to find work that is productive and delivers a fair income, security in the workplace and social protection for families, better prospects for personal development and social integration. Since wages represent the most prominent determinant of household well-being, relatively stagnant real wages compared to more developed European countries have been considered as an important factor in the high and persistent rates of poverty and social exclusion in these countries. Therefore, sub-optimal labour market outcomes in post-transition are generally the result of the initially high unemployment followed by the sharp decline in real wages which have remained stagnant despite the subsequent reduction in unemployment. In other words, post-transition can be distinguished as a specific period of development in which the transitional recession has had long-lasting economic and social implications even after its formal termination.

In this context, the aim of this article is to assess the underlying causes of severe material deprivation in North Macedonia from the point of view of employment status, particularly the differences between employed and unemployed workers. Despite the existence of a large body of literature on wage determination, income inequality, various aspects of employment structure and labour market segmentation, no studies up to now have specifically addressed the interplay between employment status and material deprivation in North Macedonia regarding the identification of the profile of that part of the population which is materially deprived.

The article is structured as follows. First, we outline the main context of the research followed by a presentation of the data and the sample used for this analysis. The next section presents the results of our empirical analyses before the final section concludes and summarises the main policy recommendations.

Research context

One of the most important development goals of economic policy is that of full, productive and sustainable employment, i.e. employment for all those who are able to work, who wish to be employed and who are actively looking for a job. This is why the United Nations included the goal of full employment, decent work for all and economic growth among its Sustainable Development Goals (SDG8). The commitment to decent work opportunities becomes even more pronounced in the case of

former transition economies where economic shocks have contracted the level of employment and redistributed wealth (Nikoloski 2009). Bearing in mind the social implications of persistent open unemployment, manifested in rising poverty and social exclusion, all transition countries have placed unemployment reduction since the outset of the transition among their most important macroeconomic goals.

However, the overall well-being of the population is determined not only by the level of employment but also by the general level of wage compensation from work. Besides the shortage of decent work opportunities, relatively low real wages are considered a source of poverty and social exclusion and are often referred to as 'in-work poverty' (Lohmann 2008; Halleröd *et al*. 2015).

Material deprivation refers to a state of economic strain and duress, defined as the enforced inability (as opposed to the choice of not doing so) to pay unexpected expenses; afford a one-week annual holiday away from home; prepare a meal involving meat, chicken or fish every second day; heat a dwelling adequately; have durable goods like a washing machine, colour television, telephone or car; or being confronted with payment arrears (mortgage or rent, utility bills, hire purchase instalments or other loan payments).

According to the OECD glossary, material deprivation refers to the inability of individuals or households to afford those consumption goods and activities that are typical in a society at a given point in time, irrespective of people's preferences regarding these items. The analysis of material deprivation stems from the need to complement a purely monetary understanding of poverty by considering poverty as a multi-dimensional phenomenon. Nevertheless, the level of material deprivation is, to a great extent, related to the amount of income that a household has. Complemented with macro factors, this plays an important role in determining the incidence of material deprivation in a country and as regards specific income groups (Bárcena-Martín *et al*. 2014). Hence, in contrast to relative poverty indicators, we should anticipate that it is not a household's income position in relation to the rest of the population but the heights of its income in absolute terms which will be important regarding its ability to afford basic goods and services.

Furthermore, measures based on income are 'input' based methods or which embody an 'indirect approach' of how these inputs are used to achieve a certain level of well-being. Measures focusing on 'outcomes' or a 'direct approach' concentrate on the actual standard of living of people and not on the means available to achieve a certain level of well-being. The final conditions of individuals can differ between people with identical resources depending on needs, health conditions, social networks or other personal constraints and abilities (Eurostat 2009; Eurostat 2012).

In addition, it is worth mentioning that material deprivation is understood as the 'enforced absence' of certain goods that a household would like to possess but which it cannot afford due to the lack of resources. Therefore, differences in the availability of or preferences for certain goods are excluded from the definition of deprivation. An important reason for the EU to include material deprivation in its indicators is that it offers a way of taking into account the different living standards among various countries, particularly between the EU-12 and the new member states. Namely, if only relative national poverty thresholds were considered, the risk of poverty would

seem to be rather similar among EU countries, masking the significant difference in living standards among the population (Stávková *et al*. 2012).

Persistent material deprivation among certain segments of the population can be partly attributed to the prevailing segmentation of the labour market. According to this theory, labour market segments can, to some extent, operate independently because the jobs and workers in each segment are matched according to particular conditions on the demand and supply sides (Cain 1976). On the supply side, labour market segmentation occurs as a result of differences among workers such as age, gender, level of education, skills, professional preferences, etc. On the demand side, segmentation refers to the characteristics of jobs such as: stability, the wage level, required level of skills and education, etc. Furthermore labour market segmentation can be differentiated according to various attributes of the labour market. According to dual labour market theory, labour market segments are differentiated by stability characteristics. In this context, the primary sector is characterised by a higher level of wages, health benefits and pensions, as well as a higher level of job security. On the other side, the secondary sector is characterised by low wages and a lower level of job security with jobs requiring low-skilled workers and relatively little training. Moreover, primary jobs are rationed which means that not all workers who are qualified for primary sector jobs, and who desire one, are able to obtain one (Reich *et al*. 1973).

The existence of labour market segmentation in transition countries has already been the subject of empirical assessment. For example, Pailhé (2003) has found that the allocation of labour in central European labour markets during the first years of transition differs from one segment to another. According to this author, labour market segmentation results from the growth of market uncertainty, a combination of new formal institutions and the presence of old informal institutions. In addition, by using flow analysis, Lehmann and Pignatti (2007) identify the existence of a segmented labour market in Ukraine. They identify that most workers try to enter formal employment as the most attractive option and seem to use unemployment and informal employment as waiting stages for entry into formal employment. The peculiarities of the transitional context contribute to specific features of poverty, including the existence of poverty even among households with employment (Brück *et al*. 2007). In this context, alternative adjustment mechanisms have emerged in less developed transition countries alongside traditional forms of adjustment. These alternatives include mechanisms such as employment in the informal sector, inactivity and emigration (Nikoloski and Pechijareski 2017).

This problem is not only a personal problem for the people who experience it, but it has become a problem for the economy as a whole since labour market segmentation has adverse effects on social stratification. Hence, dealing with the social stratification engendered from the employment status of workers in post-transition countries represents a challenging task for academics and policy-makers alike. Most of the policy measures undertaken by governments in these countries are based either on the reduction of extensive payroll taxes, improvements in the social dialogue, the attempt to establish a balance between the adjustment flexibility of employment and income security for workers or the placement of increased emphasis on active labour

market programmes (Cazes and Nesporova 2003). However, not all post-transition countries have successfully coped with the problem of labour market segmentation. In this context, western Balkan countries, including North Macedonia, also called 'lagging reformers', are still facing significant reform challenges.

The unemployment rate in North Macedonia has marked a continuous decrease during the last decade, but it continues to be one of the most pressing social problems. In this context, advocates of greater labour market flexibility consider flexible wage setting as an opportunity to fight persistent unemployment but neglect the deteriorated conditions of those individuals located at the bottom end of the wage distribution. In these circumstances, it is the low-paid, low-skilled and less protected labour market segments that generally bear most of the burden in terms of both lower wages and the higher incidence of unemployment (World Bank 2015). In consequence, the labour market of North Macedonia is affected by strong segmentation meaning that certain social groups, such as young people, less skilled workers and women, face a higher risk of unemployment and inactivity than the rest of the labour force. The country's high unemployment rate also has enormous social implications including rising poverty, income inequality and the social exclusion of deprived social segments (Nikoloski 2011).

Data and sample

Survey on Income and Living Conditions

This analysis draws on an examination of micro data from the Survey on Income and Living Conditions (SILC) whose main scope is to enable the compilation of statistics on income distribution as well as provide indicators of monetary poverty. This survey is conducted under regulations set down by the European Parliament and the Council[2] that include definitions; rules for the framework of the survey and the sampling frame; rules for monitoring households; lists of the main and secondary variables; and specific variables in terms of housing conditions, social and financial exclusion, material deprivation and other rules applied across all European countries (Eurostat 2010).

The advantage of SILC as a household survey consists of its extensive coverage as it captures earnings in both the formal and informal sectors and can account for the combined pay of individuals who have several jobs. Alternatively, since the data are collected directly from individuals in a household they have a higher measurement error than a survey based on company records (Lee and Sobeck 2012). Namely, due to the self-reporting character of SILC, the survey data may be affected by serious under-reporting.

The SILC project was launched in 2003, originally on the basis of an informal agreement reached between six EU member states (Belgium, Denmark, Greece, Ireland, Luxembourg and Austria) and Norway. The starting date for the EU-SILC instrument under the Framework Regulation was 2004 for the EU-15 (with the exception of Germany, Netherlands and the UK which had derogations until 2005) as well

2 Regulation EC No.1177/2003.

as for Estonia, Norway and Iceland. The remaining new member states (i.e. other than Estonia) started in 2005 (Eurostat 2007: 196).

SILC is conducted in accordance with international classification systems. The main classifications used are ISCED 2011 for levels of education; ISCO 08 for occupational categorisation; and NACE Rev.2 for economic activity.

The primary purpose of SILC is to establish a common framework for the systematic collection of data on income and living conditions. The survey is the basis for calculating structural indicators for comparative analysis at EU level, for laying the groundwork on which income redistribution policies might be based and for highlighting the manifestation of poverty and social exclusion. For instance, by using SILC data, statistical officials produce the 'Laeken' set of common European poverty indicators, called in line with their establishment at the European Council of December 2001.

The target population in SILC consists of all those in private households who are aged 16 years and over. The manner of conducting this survey makes it possible to monitor both households and individuals. Information on social exclusion and housing conditions is collected at household level while labour, education and health related data are obtained in respect of all individuals aged at least 16. Those living in collective households and institutions are excluded from the target population. The income and living conditions of a particular sub-set of the sample are observed for four years in order to obtain data on certain long-term indicators. The reference period for earned income is the 12 months of the previous calendar year.

SILC in North Macedonia

The State Statistical Office in North Macedonia conducted SILC for the first time in 2010 as a new source of data on poverty and social exclusion. The survey has been carried out continuously each year while the research on which this article is based focuses on the results for the period 2012-2015.

The sampling design for the survey consists of a stratified two-stage sample. In the first stage, it is based on a simple random sample from the population of primary sampling units. In the second stage, it is based on a simple random sample of secondary sampling units (households) by using random number generation. Stratification is done at regional level (eight regions of the country, in line with NUTS3) and the degree of urbanisation (urban or rural), resulting in a total of 16 strata. The sample size in 2015 was 5,115 households while in 2016 this was increased to 5,370 households. All regions by type of settlement are covered in proportionate to the target population. Therefore, the entire territory of North Macedonia is represented in the survey in line with its geographical representation.

All individuals aged 16 and over are categorised according to their most frequent activity status. The most frequent activity status is defined as the status that individuals declare to have occupied for more than half the number of months during the reference year. The categories of most frequent activity status are employed, self-employed, unemployed, retired and 'other inactive'. The distribution of household members by most frequent activity status for 2015 is presented in Table 1.

Table 1 – Distribution of household members by activity status

Status	Share (%)
Employed	25.0
Self-employed	8.3
Unemployed	16.3
Retired	9.3
Other inactive	23.0
People under 16	18.1

Source: State Statistical Office of the Republic of North Macedonia, SILC

In this context, the 'employed' are defined as individuals who work for a public or private employer and who receive compensation in the form of wages, salaries, fees, gratuities, payment by results or payment in kind. The current economic status of employed individuals in the sample is self-identified in line with individuals' own perceptions of their main current activity. It is, in principle, determined on the basis of how most of their time is spent although no criteria have been specified explicitly. This differs from the International Labour Organization concept which is based on a strict definition. For instance, many people who would regard themselves as full-time students or homemakers may be classified as 'ILO employed' if they have a part-time job. Similarly, some people who consider themselves 'unemployed' may not meet the strict ILO criteria of taking active steps to find work and being immediately available for it.

The concept of 'current' implies that any definitive changes in the activity situation are taken into account. For instance, if a person has lost a job or has recently retired, or whose activity status has otherwise changed in a definitive manner, then the situation as at the time of the interview should be reported. In this sense, 'current' overrides any concept of averaging over any specific reference period. If the person combines different part-time jobs as an employee that result in the equivalent hours of a full-time job, the person should consider him/herself as an employee working full-time. In this context – and just to reiterate the concepts – 'work' means any work for pay or profit; while pay includes cash payments and payments in kind (goods and services rather than money).

Empirical analysis

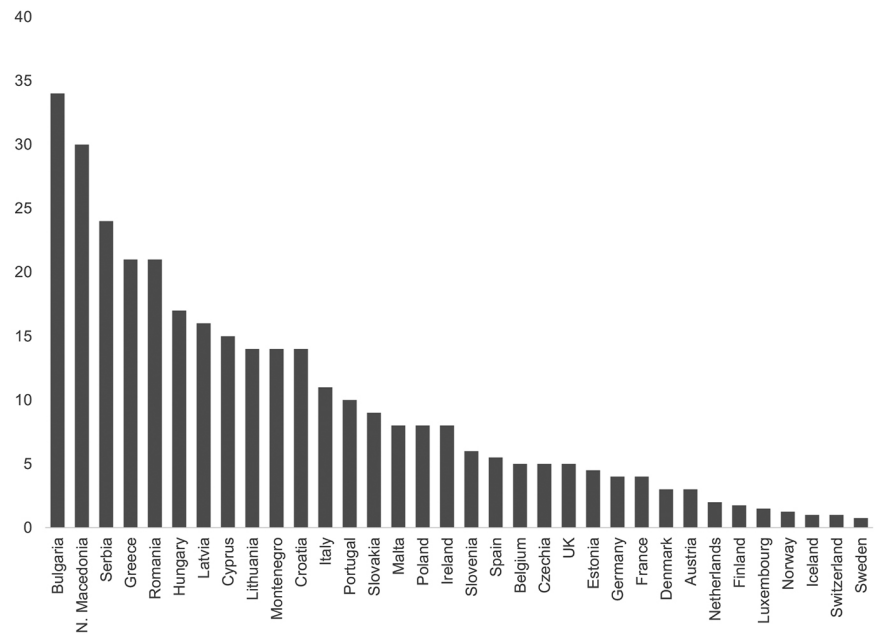
The material deprivation rate is an indicator within SILC that expresses the inability to afford some items considered by most people to be desirable or even necessary to lead an adequate life. The indicator distinguishes between individuals who cannot afford a certain good or service and those who do not have this good or service for another reason, e.g. because they do not want or do not need it. In the context of SILC, this indicator measures the percentage of the population that cannot afford at least three of the following nine items:

a. to pay their rent, mortgage or utility bills
b. to keep their home adequately warm
c. to face unexpected expenses
d. to eat meat or protein regularly
e. to go on holiday
f. to afford a television set; a washing machine; a car; and a telephone (each treated as separate items as regards the list).

The severe material deprivation rate is defined as the enforced inability to meet the cost of at least four of these items. In addition, the persistent material deprivation rate is defined as the enforced inability to pay for at least four of these items in the current year on top of at least two of them during the preceding three years.

The severe material deprivation rates for European countries are presented in Figure 1.

Figure 1 – Severe material deprivation rates, EU-SILC (2015)



From Figure 1 we can see that Bulgaria and North Macedonia, followed by Serbia, Greece and Romania, face the highest severe material deprivation rates. This suggests a need to supplement the income-based measure used to identify and monitor the risk of poverty and social exclusion across the EU with indicators of material deprivation. That there is a clear inverse link between the proportion of people who report being materially deprived and median levels of income per capita across countries gives an added reason for this, since such a move would help to overcome the

limitations of defining the income measure in relative rather than absolute terms when making comparisons between countries.

Certain problems are nonetheless present when using material deprivation as a poverty tool for comparative analysis. Namely, the presumption that the same list of resources is of the same relevance in all European countries seems questionable. While the usage of no preference weighting enables a cross-country comparison, it is assumed that the same set of standard goods is necessary to be an accepted part of society in all countries. However, given diverging living standards across Europe, the assumption that these goods and services assume exactly the same social importance throughout different countries does not hold. The lower the average level of disposable income in a given country, the sharper will be the consequences of an unfavourable socio-economic position since social stratification is more pronounced in countries with lower average disposable income.

The incidence of severe material deprivation among unemployed workers in North Macedonia is as high as 48.9 per cent, followed by low-paid workers whose incidence runs at about 36 per cent, while it is lowest among highly-paid workers whose incidence of severe material deprivation stands at 19.6 per cent. Regarding the relationship between income poverty and material deprivation, it can be emphasised that the populations identified as 'income poor' and 'severely materially deprived' do not perfectly overlap. In the case of North Macedonia, the proportion of people who are neither income poor nor deprived is 75.7 per cent. On the other hand, the proportion of individuals combining both income poverty and severe material deprivation is 4.2 per cent. Despite the link between income poverty and severe material deprivation, the profile of each of these groups is likely to be different (Gerovska Mitev, 2012).

We further assess the determinants of severe material deprivation by estimating a logistic regression model based on SILC data for 2015. According to the theory of labour market segmentation, the profile of the materially deprived should differ significantly among workers with different employment statuses. In this context, we consider employed and unemployed workers separately. The specification of the logistic regression model is as follows:

$$logit(E[Y_i|\mathbf{X_i}]) = logit(p_i) = ln\left(\frac{p_i}{1-p_i}\right) = \beta_0 + \beta_1 x_{1,i} + \cdots + \beta_m x_{m,i} \quad (1)$$

where the dependent variable takes value '1' if the employee has been considered as severely materially deprived and '0' otherwise. As independent variables we consider a number of personal, household and employment status characteristics that are often cited as the most important micro-level determinants of material deprivation (Bárcena-Martín *et al*. 2014).

The individual explanatory variables are the following: Secondary and Tertiary (both reflecting level of education); (work) Experience; Sex; Marital status; Place of living; General health; and Chronic illness.

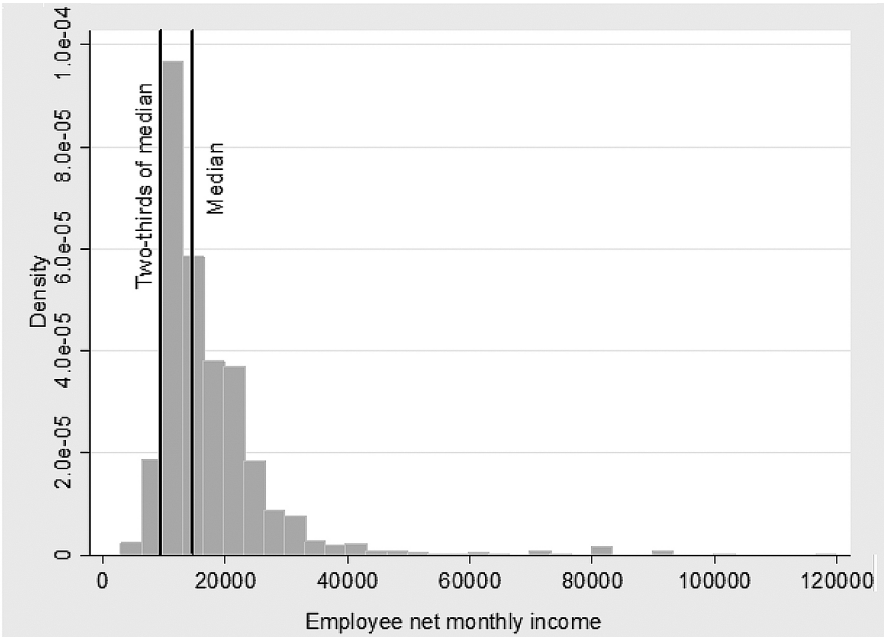
According to previous studies, the presumptions of human capital theory that higher education reduces deprivation and improves the life prospects of people are

strongly confirmed (Boarini and Mira d'Ercole 2006; Berthoud and Bryan 2011; Figari 2012). In our model we consider elementary education as a reference category while introducing dummy variables for secondary and tertiary education. Similarly, work experience increases workers' human capital and is likely to improve the living conditions of their household. Most studies find that women are generally more likely to rank as deprived than men although this gender gap remains largely unexplained (Halleröd *et al*. 2006). Marital status and place of living (urban/rural) have ambiguous effects on material deprivation although theory assumes a marital wage premium as a result of increased productivity due to the need to provide the necessary living conditions for the family. In addition, it can be assumed that people in poor health and/or having chronic illnesses are much more at risk of being materially deprived compared to other people.

The explanatory variables at household level are the following: Household size; Single adult household; and Number of dependent children. In this context, previous studies have found that people living alone and lone parents, as well as families with dependent children, are especially vulnerable to material deprivation (Boarini and Mira d'Ercole 2006). Here it might be that intra-household transfers play an important role in maintaining the well-being of the household: namely, in deprived households with one or more unemployed members, income from various sources can be distributed among all members of the household in order to satisfy basic needs (Nikoloski and Pechijareski 2017).

The work intensity of a household is the ratio of the total number of months that all working age members of the household have worked during the income reference year and the total number of months the same household members could theoretically have worked in the same period. The indicator of very low work intensity is defined as the number of people living in a household where those of working age worked less than 20 per cent of their total potential during the previous twelve months. Previous studies have shown that households with low work intensity face a higher probability of being in severe material deprivation (Mussida and Parisi 2019). Among employed workers we consider those who are low-paid by taking two-thirds of median income as the low pay threshold. The distribution of employees' net monthly income for 2015 is presented in Figure 2.

Figure 2 – Distribution of employees' net monthly income in North Macedonia, 2015



The results of the estimated logit model, together with the calculated differences in odd ratios for the sub-sample of the employed, are presented in Table 2.

Table 2 – Estimated logit model for severe material deprivation among the employed

Independent variables	Coefficient	p-value	Difference in odd ratio
Constant	-0.13442	0.791	
Secondary	-0.4562	0.321	
Tertiary	-1.6190***	0.001	-80.2%
Experience	-0.0127**	0.026	-1.3%
Sex (1= female)	-0.0770	0.486	
Marital status (1= married)	-0.2569*	0.082	-22.7%
Place of living (1= rural)	-0.2861**	0.011	-24.9%
General health (1= bad or very bad)	1.1150***	0.001	205.0%
Chronic illness (1= yes)	0.1703	0.481	

Independent variables	Coefficient	p-value	Difference in odd ratio
Household size	-0.0635	0.190	
Single adult household (1= yes)	0.3667	0.342	
Number of dependent children	0.0471	0.547	
Low work intensity	0.0622	0.608	
Elementary occupation	0.3914***	0.010	47.9%
Low-paid (1= below 2/3 of median)	0.6522***	0.000	92.0%

Note: */**/*** indicate significance at the 10/5/1 percentage level respectively.

From Table 2 we can observe that being in poor or very poor general health doubles the probability of severe material deprivation, while being low-paid increases the probability of an employee being severely materially deprived by 92 per cent. Regarding educational attainment, those with completed tertiary education are some 80.2 per cent less likely to be under threat of severe material deprivation. An additional year of work experience reduces the incidence of severe material deprivation by 1.3 per cent while being married reduces this incidence by 22.7 per cent. Employees in rural areas are 24.9 per cent less likely to be affected by severe material deprivation. With respect to household characteristics, we do not observe a statistically significant impact on the incidence of severe material deprivation.

Similar to employed workers, the logistic regression model is estimated for the sub-sample of unemployed workers. As previously, the dependent variable takes the value '1' if the unemployed worker is considered as severely materially deprived and '0' otherwise. In this specification we additionally take into consideration the explanatory variables 'Ever worked' and 'Available to take a job' while excluding the occupation and low-pay status variables from the previous specification. The results of the estimated logit model, together with the calculated differences in odd ratios, are presented in Table 3.

Table 3 – Estimated logit model for severe material deprivation among the unemployed

Independent variables	Coefficient	p-value	Difference in odd ratio
Constant	2.2558	0.001	
Secondary	-1.4781***	0.007	-77.2%
Tertiary	-2.7648***	0.000	-93.7%
Experience	-0.01262	0.249	
Sex (1= female)	-0.2311	0.121	
Marital status (1= married)	-0.2262	0.179	

Independent variables	Coefficient	p-value	Difference in odd ratio
Place of living (1= rural)	-0.3822***	0.007	-31.8%
General health (1= bad or very bad)	0.2372	0.547	
Chronic illness (1= yes)	0.4004	0.166	
Household size	-0.1492***	0.004	-13.9%
Single adult household (1= yes)	1.1368	0.325	
Number of dependent children	0.0151	0.873	
Low work intensity	0.8699***	0.000	138.7%
Ever worked (1= yes)	-0.1022	0.584	
Available to take a job (1= yes)	-0.0174	0.958	

Note: */**/*** indicate significance at the 10/5/1 percentage level respectively.

From Table 3 we can notice that living in a household with low work intensity increases the probability of severe material deprivation by 138.7 per cent. With respect to educational attainment, those with completed secondary education have a 77.2 per cent lower probability of being severely materially deprived while those with tertiary education are some 93.7 per cent less likely to be under the threat of severe material deprivation. Unemployed people in rural areas are 31.8 per cent less likely to be affected by severe material deprivation. With respect to household characteristics, we find that an additional household member would, on average, decrease the probability of severe material deprivation by 13.9 per cent.

Conclusions and policy recommendations

This analysis of the relationship between material deprivation and employment status clearly suggests that labour market segmentation exerts a strong impact on people's well-being. Employed workers, although better off than the unemployed, still face a much higher risk of severe material deprivation if they are positioned in the so-called secondary labour market. Namely, workers who are in poor health, have elementary occupations, a low level of education and low pay are disproportionally affected by material deprivation. Even so, unemployed workers with low work intensity and low human capital accumulation are the ones most at risk of severe material deprivation.

The alternative labour market adjustment mechanisms in the case of North Macedonia considerably contribute towards cushioning the consequences of severe material deprivation. Namely, people living in rural areas face a lower probability of severe material deprivation, indicating that subsistence agriculture might play a significant role in improving household well-being. In addition, living in bigger households improves the position of unemployed workers, meaning that income pooling and intra-household transfers are important sources of poverty alleviation.

In taking into account these findings, we seek further to frame the appropriate policy measures which, by improving the position of the unemployed as well as low-paid employees, could reduce the incidence of poverty and social exclusion experienced by such workers and their families.

The education and training of workers is the most widely used supply-side strategy for improving skills and competences as a precondition for better positioning in the labour market. Since increasing the productivity of low-paid employees is crucial to their wages, policy considerations should be given to increasing their human capital. In general, a higher levels of skills acquired through education and training reduces the risk of low pay. Improvements in the training possibilities for low-paid workers could increase skill endowment and encourage movement from lower-paid contingents to better-paid ones. This can be done by an appropriate design and greater funding of the education system including vocational education and training (VET) and higher education.

In future reforms of vocational education and training, emphasis should be placed on the development of professionals and service workers possessing competitive skills and who are, therefore, likely to be more attractive on the labour market. In this context, we should stress that gathering practical skills is as important as acquiring theoretical knowledge which has, so far, received far more attention from policy-makers. Future reforms of VET curricula have to take into consideration the demand side of the labour market: that is, a careful analysis of labour market needs has to be undertaken prior to any implementation of new curricula or the amendment of existing ones.

In addition, the government of North Macedonia has to consider the quality of higher education as a top priority and intervene by rigorously implementing quality standards at national level. The necessary preconditions for the promotion of quality in higher education have already been provided by the adoption of the new Law for higher education.[3] It is to be hoped that increased government awareness will further increase investment in higher education and contribute towards a gradual convergence of the higher education system with the standards adopted in more developed countries. Skill imbalances due to the disparities in the numbers of graduates have to be addressed by additional government stimuli for students in technical and technological sciences.

The design of active labour market programmes (ALMP) can make an important contribution since a significant proportion of the labour force is affected by the so-called 'low pay/no pay' trap, characterised by individuals moving between unemployment and low-paid precarious work and in which workers can become trapped in low-paying jobs or scarred by the experience of unemployment. In respect to this, there is a challenging task for activation policies to focus not only on the long-term unemployed but to include a range of retention and advancement strategies for those repeatedly shifting between low-paid work and unemployment.

Even though the scope of the active labour market programmes carried out in North Macedonia by the Employment Service Agency is relatively large, their cover-

3 *Official Gazette of the Republic of Macedonia* No. 82, May 2018.

age in practice is relatively modest. In our view, emphasis should be given to apprenticeship programmes in order to increase the employability of young unemployed people and to overcome their lack of skills when they enter the labour market. Additionally, the preparatory programme for employment ought to provide training for registered unemployed workers from disadvantaged segments. This should aim to raise their competitiveness and employability on the labour market as well as improve the matching process between the supply of and the demand for workers with appropriate skills. With respect to the targeting of disadvantaged labour market segments, a lack of coordination has been identified among the key institutions and social partners. Therefore, future policy recommendations should focus on overcoming the lack of coordination at this level as well as encouraging the greater involvement both of key institutions and the social partners in the process of anticipating skill demands.

An improvement in the position of workers can be made by providing more stable work arrangements. A potential strategy for this is to increase the role of unionisation and its impact on wage levels in the context of collective bargaining. In the future, the role of trade unions should be particularly strengthened in the private sector. Namely, in most newly-established firms, which are generally smaller, employees are not organised in trade unions while in big companies it is questionable whether trade unions operate completely independently of company owners. Another issue is the fragmentation of trade unions and the formation of new trade union federations and confederations which substantially diminishes workers' bargaining power. The consequence here is that trade unions should take the initiative and play a crucial role in proposing changes in the existing labour code.

Wage subsidies to private employers have often been proposed by economists as a potentially flexible and efficient method of improving the earnings and employment position of low-wage workers. In this case, decisions about job creation and hiring remain in the hands of employers but labour costs are borne, in part, by the government. As a consequence, firms are expected to increase their utilisation of the labour force from within the target population. Hence the idea behind wage subsidies is to reduce the costs to employers of employing people from the target group of workers, thereby stimulating demand for these workers and raising their employment rates and earnings. In the case of North Macedonia, a long debate has existed about the changes which require to be made to the legislation covering wage setting and its implementation. This includes tax subsidies for low-paid workers and reforms to the tax system such as the introduction of progressive tax rates.

Finally, the quality of life and workers' morale, particularly among low-paid workers, can be improved by increasing the statutory minimum wage which, in turn, is expected to exert upwards pressure on wages throughout the wage distribution, extending benefits to workers earning more than the new minimum. However, there is a debate in the literature on minimum wages regarding when to increase them and how much they should be increased. The statutory minimum wage in North Macedonia has been regularly increased from 8,050 MKD in 2012 to 12,000 MKD in 2017. The latest increase in the statutory minimum wage, taking it above the standard threshold of two-thirds of the median, would potentially contribute to a reduction in

the incidence of low pay. However, in the case of North Macedonia we have to take into account the possibility of non-compliance with the statutory minimum as a result of the presence of informal employment. In this context, further research is needed in order to determine the extent of the possible shift of workers from the formal to the informal economy as a result of the opportunities presented by non-compliance.

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