

THE UNEMPLOYED WORKERS' PERCEPTIONS OF STRESS AND EMPLOYMENT PROSPECTS IN MACEDONIA: THE ROLE OF ALTERNATIVE ADJUSTMENT MECHANISMS

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Abstract

Depressed labour market conditions in Macedonia manifested by high and persistent unemployment rate, strong segmentation and prevailing long-term unemployment is considered as a heritage of more than two decades long period of transition. Unemployment has a number of negative consequences such a decreased income which is assumed to influence the subjective experience of unemployment. The negative macroeconomic shocks in Macedonia have been mitigated due to the strengthened role of alternative labour market adjustment mechanisms such as: employment in the informal sector, emigration and inactivity. However, their impact on the unemployed workers' perceptions of stress and future labour market prospects is less clear-cut. In this paper we use results from a survey carried out on a sample of unemployed workers in Macedonia in order to identify the psychological implications of unemployment by assessing the perceived stress and employment prospects with particular reference to the role of alternative labour market adjustment mechanisms.

Keywords: Labour market, unemployment, stress, employment prospect.

JEL classification: I31, J64

1. INTRODUCTION

The past two decades Macedonia has gone through the process of transition which is still shaping the social, political and economic ambience in the country. As a part of South-Eastern Europe, the Macedonian economic growth is constrained by the general regional predispositions, which amongst other things are determined by the political instability of the region. Hence, the economic performance of the South-Eastern European countries (SEECs) has not been strong enough compared to Central-Eastern Europe countries (CEECs), which already take part of the European Union. In this sense, Macedonia and other SEECs, are known as 'lagging reformers' with regard to completion of the reforms in all spheres of the society.

The initial transitional recession has *inter alia* manifested salient effects on the labour

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market performance (Pechijareski and Rocheska 1998). Generally, the transitional reforms initially had negative effects on labour markets, which were manifested in declining participation rates and in persistent high unemployment. The processes of ownership restructuring and sectoral reallocation assumed a large-scale transformation of state owned firms into privatised ones and, a reallocation of a substantial part of the labour force from the manufacturing and agricultural sectors towards the expanding service sector (Blanchard 1997). The experience in almost all transition countries, including Macedonia shows that the creation of new jobs in the emerging private sector was not initially strong enough to absorb the mass of workers laid-off from the restructured state-owned firms. At the same time, the mismatch between the skill requirements of newly created jobs and effective skills owned by the workers has become a substantial problem (Svejnar 2002). Consequently, the labour markets in early transition became less dynamic with a relatively stagnant unemployment pool leading to increases in unemployment and especially long-term unemployment (Cazes and Nesporova 2003). The initial 'transitional unemployment' differed in several aspects from other types of unemployment in that it was characterised by pronounced labour market segmentation, long average duration of unemployment and a low probability of exiting unemployment into employment (Nikoloski 2009).

The negative macroeconomic shocks in Macedonia have been mitigated due to the strengthened role of alternative labour market adjustment mechanisms such as: employment in the informal sector, emigration and inactivity. These mechanisms cushion the social implications of unemployment by absorbing a part of unemployed workforce and providing additional incomes for their households. However, their impact on the unemployed workers' perceptions of stress and future labour market prospects is less clear-cut. Thus, examining the interplay between the alternative labour market adjustment mechanisms, from one side and the unemployed workers psychological wellbeing represents a challenging research task. In this context, our research question is whether the alternative forms of labour market adjustment play significant role in dealing with unemployment and, consequently influence the perceived stress and optimism about finding a new job.

The aim of the paper is to assess the unemployed workers' perceptions of stress and employment prospects as a function of various socio-demographic variables, by paying particular attention to the role of alternative forms of labour market adjustment in Macedonia. For this purpose we use the empirical

results from a survey of registered unemployed workers. To our knowledge this is the first study addressing this issue in Macedonia, which brings two main contributions. First, it reveals the psychological implications of unemployment and alternative coping strategies on the unemployed workers' perceptions of stress and future employment prospects. Second, the results from the analysis can be used in designing appropriate social and labour market policies aiming to improve the psychological wellbeing of disadvantaged labour market segments.

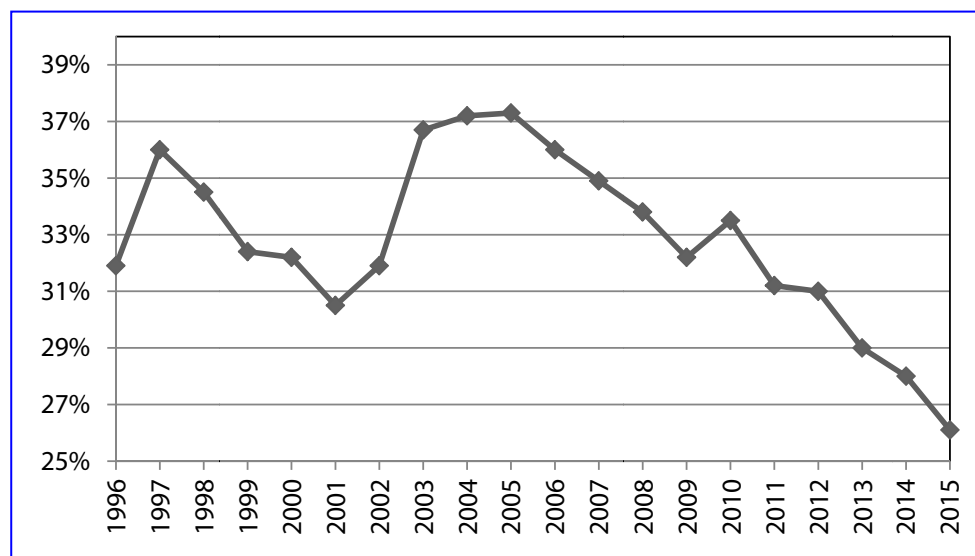
The paper is structured as follows. In section 2 we review the general characteristics of the Macedonian labour market. Next, in section 3 we present the theoretical background, whereas the empirical assessment of unemployed workers' perceptions of stress and employment prospects is subject of analysis in section 4. Finally, in section 5 we provide discussion and formulate recommendations for the labour market policies that focus on improving the psychological wellbeing of the unemployed population.

2. MACEDONIAN LABOUR MARKET PERFORMANCE

In order to investigate the features of the Macedonian labour market during transition, it is appropriate to divide the transitional period into two sub-periods. The first period encompasses the transformational recession from 1990 to 1995, with the second period starting immediately thereafter and lasting until the present. The changes of the unemployment rate in relative terms during the business cycle are rather small, which reflects the depressed characteristics of the Macedonian labour market (Nikoloski 2009). The dynamics of the unemployment rate in Macedonia during the period 1996-2015 is shown on Figure 1.

The first Labour Force Survey (LFS) in Macedonia was conducted in 1996, and since then we have detailed data concerning labour market trends. During the period 1996-2003, the Macedonian LFS was conducted on a yearly basis, whereas since 2004 it is conducted as a continuous survey throughout the year with quarterly processing of data. For the period prior to 1996 we can explore labour market trends based on the number of registered unemployed workers. According to both sources of data we can generally distinguish several features of Macedonian labour market presented as follows.

During the initial phase of transition, the labour force participation and employment rates fell for most of this period, while the unemployment rate steadily

Figure 1: The unemployment rate in Macedonia 1996-2015

Source: Macedonian Statistical Office, Labour Force Survey

increased. These trends are in line with the normal labour market patterns found in other transition countries *i.e.* declining employment under the initial shock of recession and subsequent persistence of sluggish demand for labour. Although, the mature phase of transition is characterised by broad stability in all three rates, we can observe recessions in 2001 primarily caused by the political instability and in 2009 due to the global economic crisis. Namely, Macedonia has not remained apart from the negative global macroeconomic tendencies engendered by the recent economic crisis. Although recession has started one year later, after three consecutive quarters of negative GDP growth the macroeconomic performance by the end of 2009 has already demonstrated some signs of recovery and since then the unemployment rate has manifested continuous declining trend.

The sectoral reallocation of labour has been characterised by a significant increase of subsistence agriculture and other non-standard forms of employment at the expense of rapid shrinkage of employment in manufacturing (European Training Foundation 2007). These trends in employment by sectors indicate that in Macedonia new jobs are not predominantly created in the more productive industries and service sector, but rather in agriculture and low productivity services (Micevska 2008). The increase in the share of employment in agriculture suggests that this sector has become a buffer for some people who have lost their jobs in the state-owned industrial enterprises (Nikoloski 2009). However, the recent changes show that service sector gradually becomes to play increasingly important role by absorbing more than half of the employed workforce, whereas the agricultural

sector starts to shrink. Given the rigidities in the standard adjustment through employment and wages, less traditional labour market adjustment mechanisms may play a more significant role. Among the alternative labour market adjustment mechanisms we particularly distinguish the non-participation, emigration and employment in the informal sector.

The Macedonian labour market is affected by strong segmentation, meaning that certain social groups such as youths, less skilled workers, and women, face a higher risk of unemployment and inactivity than the rest of the labour force. As a consequence, the high Macedonian unemployment rate has enormous social implications such as rising poverty, income inequality and social exclusion of deprived social segments (Nikoloski 2012). When considering the marginalised categories, we assume that the same labour market segments are the most inclined toward informal employment arrangements or temporary emigration where jobs are characterised with low security and lower wages compared to jobs in the formal sector. Furthermore, the marginalised segments are affected by the fluctuations in the business cycles more than the rest of the labour force which is evident from the last economic downturn.

In addition, the Macedonian labour market is characterised by a relatively stagnant unemployment pool that has been translated into increasing long-term unemployment¹. For instance, long-term unemployment accounts for more than 80 percent of total unemployment which represents high relative share compared

¹ As long-term unemployed are consider those who look for job more than one year;

to international standards. Long-term unemployment has significantly contributed to an erosion of skills and motivation of unemployed workers, making them less employable over time. The deterioration of skills further reduces the attractiveness of the labour force and contributes to a blurring of the difference between the states of unemployment and non-participation. The long-term unemployed are not viewed by employers as attractive fillers of vacancies, meaning that their employability is relatively weak.

After remaining unemployed for a long period of time, a considerable part of unemployed workers stops looking for jobs and quits the labour force. This is known as the phenomenon of 'discouraged workers', a characteristic for depressed labour markets where labour demand is insufficient and unemployed workers face poor employment prospects. Discouraged workers do not fulfil the requirements of job search as a precondition to be counted as unemployed which means that they are *de facto* non-participants. On the other hand, they can easily re-enter the labour force if, conditions on the demand side of the labour market improve (Kingdon and Knight 2006). For example, the estimated number of discouraged workers according to the LFS in 2012 was 30322 which represent more than 10 percent of the total number of unemployed.

The size of the employment in the informal sector² in Macedonia is relatively large compared with the more advanced transition countries. For instance, according to the LFS data in 2012 the share of employed in the informal sector was estimated about 22.5 percents. However, having in mind the nature of the informal sector, any assessment based on self-reporting as in the case of LFS, will potentially underestimate its true size. The Macedonian informal sector predominantly consists of small-scale agricultural production carried out by workers with low levels of education who are either employees without stable contracts or unpaid contributing family workers. Thus, workers in the informal sector are usually low skilled or unskilled and they are less competitive in the labour market (Nikoloski et al. 2012). In addition, a majority of these workers experience the so-called 'informal employment trap' *i.e.* they face a low probability of exiting the informal employment (Bernabe 2002). At the micro level, there is increased human capital erosion experienced by workers who work in the informal sector due to the labour-intensive characteristics of the informal employment and absence of vocational training.

2 Although there are various terms used to denote the informal sector, we assume that it covers all unrecorded economic activities that are legal by the nature of produced goods and services, but are undertaken in order to meet the basic needs (also known as 'coping strategies').

3. LITERATURE REVIEW

The implications of unemployment are various and research has clearly demonstrated that it causes psychological distress. The employment status is widely acknowledged to have a large influence on individual perceptions, with unemployment in particular associated with a strong negative impact on measures of life satisfaction (Winkelmann and Winkelmann 1998; Waters 2000). For instance, the empirical findings show that unemployed have higher levels of perceived stress compared to employed and among the lowest level of psychological wellbeing of all people (Meer 2014). The assumption that unemployment is associated with lower level of wellbeing stems from the fact that unemployed have lower incomes, decreased human and social capital which consequently implies diminished life satisfaction and happiness.

Although unemployment is generally considered as an economic problem, the psychological consequences of the unemployment go beyond the pure economic considerations (Winefield 2002). Namely, unemployment status imposes to individuals and their families additional burden as non-pecuniary costs since employment is not only a source of income, but also provides social relationships, identity in the society and individual self-esteem (Winkelmann and Winkelmann 1998; Tøge 2016). The empirical literature shows that unemployed persons manifest significant symptoms of deteriorated health conditions such as higher incidence of stress, anxiety and depression (Bordea and Pellegrini 2014). Furthermore, higher social capital and communication skills do not appear as significant factors in reducing the harmful effect of unemployment (Winkelmann 2009; Pelzer et al. 2014).

Since unemployment is a stressful experience, coping with unemployment is emotionally demanding situation which varies from person to person. According to Lazarus and Folkman (1984), coping is the "process of attempting to manage the demands created by stressful events that are appraised as taxing or exceeding a person's resources". Coping is typically classified in two categories: efforts to deal with the problem or efforts to deal with the emotions. Hence, coping strategies mediate the potentially negative effects of stressors and thus influence mental health. The development of successful coping behaviours is likely to reduce stress and help a person to solve personal problems and maintain their psychological wellbeing (De Fazio et al. 2016).

The duration of unemployed also affects the perceived stress and optimism about finding a new job. According to the adaptation hypothesis, by the course of time individuals can adapt to unemployment which implied that longer-duration unemployment has

a smaller effect on self perceived health than does shorter-duration unemployment. Alternative theoretical view is that unemployed do not adapt to unemployment status. In this case, it is assumed that long-term unemployed are more likely to experience the phenomenon of 'discouraged worker' which would subsequently lead to bad self-perceived health (European Commission 2016). This category of workers is considered as marginally attached and is viewed as distinct labour market state lying between the non-attached and the unemployed (Jones and Riddell 1998).

Besides considering unemployment at the individual level, the total unemployment as a macroeconomic phenomenon might affect the individual perceptions and is strongly related to increased reports of bad self-perceived health (Tay and Kuykendall 2014; European Commission 2016). In this context, two competing theories are used to explain the effect of the overall unemployment on the individual perceptions of unemployed people. First, having more unemployed individuals will result in lower psychological wellbeing at aggregate level which, in turn, may exert negative spill-over effects on other members in the society. On the other hand, the prevailing high unemployment rate may become norm for more individuals to be unemployed which subsequently attenuates detrimental effects of personal unemployment (Clark 2003; Oesch and Lipps 2013).

The experience in transition countries shows that socio-political changes had a strong negative impact on individual perceptions of unemployed. Some studies show that even after 20 years of transition, most transition countries have not regained the level of wellbeing they enjoyed at the outset of transition (Gruen and Klasen 2012). According to the empirical evidence, it seems that vulnerable individuals such as adults affected by labour market reform may represent specific affected group (Orosa 2013). For instance, Blanchflower (2001) finds out that most of unemployed in transition countries are unhappy and are dissatisfied with the direction of reform, presumably because it has excluded them. However, the impact of the alternative labour market adjustment mechanisms on the individual perceptions of unemployed workers in transition countries has so far received little attention.

4. EMPIRICAL ANALYSIS

As stated above, the Macedonian labour market is characterised with persistent unemployment which can be *inter alia* attributed to factors that we denote

as alternative labour market adjustment mechanisms. While the conventional forms of labour market adjustment through wages and/or working hours are mostly characteristic for the employed workers, the non-standard forms are mainly alternatives for the unemployed. According to our hypothesis, the alternative labour market adjustment mechanisms such as employment in the informal sector, emigration and inactivity may play significant role in shaping the unemployed workers' perceptions of stress and future labour market prospect. This is reasonable since, these forms of adjustment as alternatives in dealing with unemployment provide means of subsistence particularly for disadvantaged labour market segments.

4.1 Data and sample

To our knowledge, there is a lack of consistent cross-section data about the unemployed workers' perceptions in Macedonia. In order to estimate to what extent the unemployed are prone toward the non-standard forms of adjustment we have designed and carried out a survey based on a sample of registered unemployed workers. Although different from the LFS criterion, the advantage of applying the registration criterion for selection can be viewed in the possibility to unambiguously identify eligible respondents in the sample. Due to the lack of exhaustive list of registered unemployed which is considered as confidential, the interviewers had freedom to choose eligible respondents randomly.

The survey was conducted during a reference period from mid October to mid November, 2011. The sample consisted of 2300 unemployed workers which represented about 1 percent of the total number of registered unemployed workers. By taking into account the missing values, the final sample size used for estimation was 2091 unemployed workers. In order to provide representativeness of the sample, the geographical distribution was maintained by selecting a proportional number of respondents with respect to the total number of registered unemployed workers in each branch office. Having in mind the cross-section character of the survey, its weakness is viewed in the fact that it cannot be used to assess changes of unemployed workers' perceptions over time. The structure of the sample according to the main socio-demographic characteristics is given in Table 1.

The survey was traditionally conducted in a pen and paper format by using self-administered questionnaires³. The questionnaire consists of 53 questions

³ The questionnaire is available at request which should be sent to the corresponding author.

Table 1: The sample structure according to various socio-demographic characteristics

Gender		Place of living		Age	
Male	50.30%	Urban	77.89%	15-20	4.09%
Female	49.70%	Rural	22.11%	21-25	23.27%
Education		Ethnicity		26-30	19.23%
Primary or less	15.11%	Macedonian	81.80%	31-35	11.70%
Secondary	50.35%	Albanian	10.21%	36-40	10.61%
Higher	34.54%	Turk	2.26%	41-45	10.61%
Marital status		Roma	2.26%	46-50	8.96%
Single	40.43%	Serbian	1.95%	51-55	6.92%
Married	53.66%	Vlahos	1.00%	56-60	3.61%
Divorced	3.74%	Bosnian	0.35%	61-65	0.87%
Widowed	2.18%	Other	0.17%	65 and more	0.13%

Source: Authors' calculations

that had been previously tested with a pilot survey. Most of the questions are close-ended with multiple choices, *i.e.* they are accompanied by a range of answers from which the respondent is asked to indicate the most applicable one. Only two questions are open ended, designed in order to get personal opinion from the respondent about the psychological perceptions of being unemployed. Besides the questions about the various economic activities or sources of income we attempted to assess the adjustment mechanisms indirectly by using the time allocation to various activities as well as individual values and perceptions.

4.2 The alternative labour market adjustment mechanisms

Among the alternative adjustment mechanisms we pay particular attention to the role of employment in the informal sector, emigration and social transfers. As informal economic activities will be considered only those who are legal in nature but not officially registered such as subsistence farming. The emigration as a coping strategy will include temporary work abroad as well as reliance on remittances from the relatives who are permanent emigrants. Finally, the inactivity will mainly encompass reliance on social transfers including both direct and inter household transfers.

In our empirical analysis 38.3% of the surveyed unemployed workers declared that they earn income from various types of additional activities that are informal by nature, while half of them declared that other household members also perform such types of activities. With respect to this, we argue that in depressed labour markets which lack job creation in the formal sector, informal employment helps people to

enter the workforce by offering an alternative to unemployment or inactivity and, prevents a further decline in living standards.

The majority of the unemployed workers who stated that are informally employed are engaged in subsistence activities such as agriculture, farming and seasonal work in the country that together represent about 60%. On the other hand, the entrepreneurial activities such as running own business, artisanship or own production and trade are represented to lesser extent. Therefore, we can conclude that most of the unemployed workers that operate in the informal sector are usually low skilled or unskilled and perform labour-intensive operations. The above argument is in line with the sectoral reallocation in Macedonia during transition, according to which the share of employment in subsistence agriculture demonstrated a significant rise. Nevertheless, this should not be a general conclusion for the productivity in the informal sector, since in this case we do not include the informal activities performed as a second job by those who are otherwise formally employed.

The income gained from informal activities on average is 34.2% of the total household incomes, which represents significant financial contribution. However, expressed in absolute terms the average monthly income from informal activities is moderate since one third of the respondents declared to earn less than 100 Euros and another third declared an amount between 100 and 200 Euros. As a consequence, we can argue that unemployed workers are primarily involved in informal businesses that usually operate on a small-scale basis either in the form of self-employment or as micro or small enterprises.

Furthermore, in our empirical analysis we found that 27.7% of the surveyed unemployed workers

would emigrate permanently if they had the possibility, whereas 33.9% have intentions to work abroad temporarily. However, about 46% of those who declared having intentions to emigrate undertake concrete activities to find work abroad, while the remaining 54% do not undertake such activities. On the other hand, 11.7% of the respondents stated they have close relatives who are currently emigrated from the country two thirds of who receive financial aid for covering their costs of living. The share of remittances for this category of households in their total income is about 28.2%, which represents a considerable proportion.

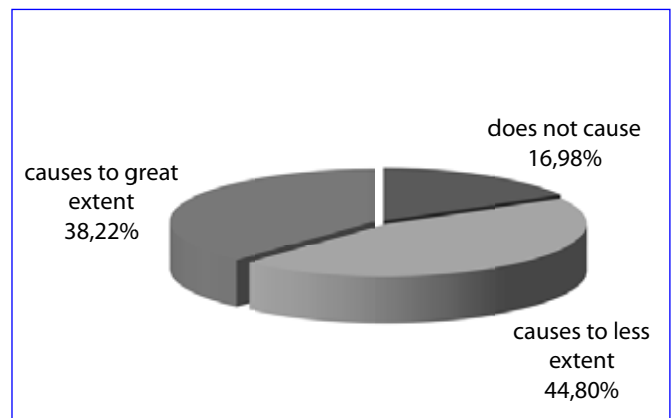
We consider the inactivity as mechanism for labour market adjustment since it provides additional income for the households through various types of social transfers. Moreover, we assume that in Macedonian society dominates the traditional system of values that promote egalitarianism, distributional justice and solidarity. In this context, the inter-household transfers might play important role in maintaining the well-being of the households. Namely, in deprived households with one or more unemployed members the income from various sources can be distributed to all members of the household in order to satisfy their basic needs. With respect to this, in our empirical analysis we particularly pay attention to the pensions and social assistance.

Regarding the use of pensions, we revealed that 28.5% of the surveyed unemployed have retired close relatives in their household. Moreover, 79% of the respondents confirmed that their retired close relatives participate in covering the costs of living in the household. The average amount of pensions in the sample is about 120 Euros which represents 25% of the total income for this category of households. On the other hand, we found that only 8.65% of the respondents or another member of their households receive social assistance from the government. The average amount of the social assistance is about 45 Euros, which represents 12.7% of the total income for this category of households.

4.3 The unemployed workers' perceptions of stress

Generally, unemployment is considered as a stressful experience that negatively affects an individual's perception of his/her overall wellbeing. With respect to this, we attempt to assess unemployed workers' perceptions by asking whether the unemployment causes stressing situation or other health problems. Our analysis shows that the unemployment represents an embarrassing situation for the majority of unemployed workers. For instance, 38.2% of the

Figure 2: Unemployment as a cause for stress and/or other health problems



respondents declared that unemployment represents stressing situation and/or causes other health problems to great extent, while these effects prevail to lesser extent among 44.8% of the interviewed unemployed. The distribution of respondents' opinions with respect to this question is presented in Figure 2.

In order to assess the unemployed workers' perceptions of unemployment as a stressor and/or reason for other health problems, furthermore we estimate a multinomial logistic regression, where as a reference category is considered the choice "does not cause". We divide the possible determinants in four groups: Personal traits, alternative adjustment mechanisms, household characteristics and policy treatment variables. In this context, there might be endogeneity problem suspected since workers to whom unemployment causes more stress are more inclined to emigrate or find informal employment. Hence, we are aware of this common problem in treating the psychological implications of unemployment and we interpret the estimations cautiously. The results from the estimated multinomial logistic regression are presented in Table 2.

From Table 2 we can notice that the relative probability that unemployment causes stress and/or other health problems to less extent rather than it does not cause increases with the age, level of education, duration of unemployment, job searching activity and intention to emigrate. Namely, this probability would increase by 3.3% for each additional year of age, by 14.2% for each additional level of education and by 9% for each additional level of unemployment duration⁴. In addition, the probability that unemployment causes stress to less extent is 17.7% higher among those respondents who actively search for job and 16.7% higher among those who have intention to

⁴ The unemployment duration is divided in 10 class intervals with unequal class width.

Table 2: Estimated multinomial logistic regression for perception of stress

Variable	Unemployment causes stress and/or other health problems to less extent			Unemployment causes stress and/or other health problems to great extent		
	Coeff.	Standard error	Diff. in odd ratio	Coeff.	Standard error	Diff. in odd ratio
Constant	-1.5816	1.1708		-3.9452***	1.2287	
Personal traits						
Gender	0.0469	0.1312		0.0875	0.1419	
Age	0.0320***	0.0089	3.3%	0.0680***	0.0091	7.0%
Marital status	-0.1126	0.1350		0.0737	0.1394	
Place of living	-0.0182	0.1575		-0.1079	0.1707	
Level of education	0.1332***	0.0476	14.2%	0.1712***	0.0511	18.7%
Duration of unemployment	0.0864***	0.0263	9.0%	0.1884***	0.0283	20.7%
Actively search for job	0.1632***	0.0627	17.7%	0.3742***	0.0691	45.4%
Alternative adjustment mechanisms						
Has intention to emigrate	0.1544**	0.0828	16.7%	0.3680***	0.0894	44.5%
Engaged in informal employment	-0.0738	0.1378		-0.0943	0.1471	
Household characteristics						
Household size	0.0040	0.0624		-0.0047	0.0661	
Number of employed members	-0.0447	0.0859		-0.0899	0.0930	
Has another unemployed member(s)	-0.1719	0.1398		-0.5078***	0.1490	-39.8%
Has retired member(s)	-0.1664	0.1523		-0.2825*	0.1627	-24.6%
Has emigrated member(s)	0.3012	0.1916		0.4514**	0.2080	57.1%
Policy treatment						
Social assistance beneficiary	0.1738	0.2988		-0.2854	0.2954	
Health insurance beneficiary	-0.1642	0.1304		-0.0979	0.1418	
Unemployment benefit recipient	-0.3670	0.2888		-0.4657	0.2971	
Participation in active programmes	0.2163	0.2069		0.3511	0.2261	

Note: *, ** and *** represent statistical significance at the 10%, 5% and 1% levels respectively.

emigrate. Thus, being proactive unemployed worker in the Macedonian labour market is associated with higher probability of experiencing stress from unemployment.

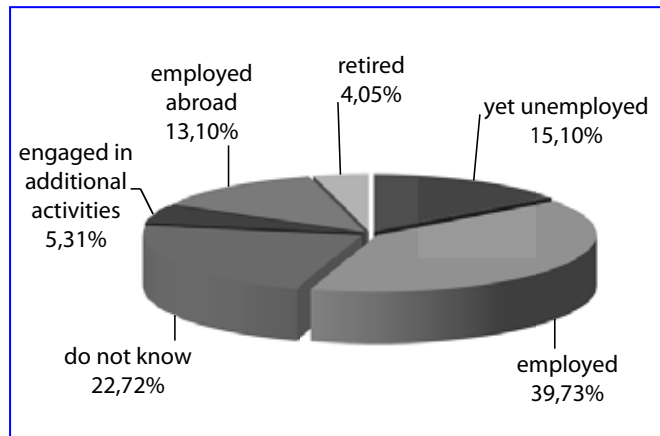
The similar and even more pronounced pattern can be observed for the relative probability that unemployment causes stress and/or other health problems to great extent rather than it does not cause. Namely, this probability would increase by 7% for each additional year of age, by 18.7% for each additional level of education and by 20.7% for each additional level of unemployment duration. Furthermore, the probability that unemployment causes stress to great extent is 45.4% higher among those respondents who actively search for job and 44.5% higher among those who have intention to emigrate. In addition, this relative probability is 57.1% greater if the respondent's household has emigrated member(s), whilst it is lower by 39.8% and 24.6% in cases the respondent's household has another unemployed member or retired member(s) respectively. The pseudo R^2 of this model is 0.083, while the p-value of the calculated χ^2 which is 0.000 leads us to conclude that at least one of the regression coefficients in the model is not equal to zero.

4.4 The unemployed workers' perceptions of employment prospects

Besides being a stressful situation, the optimism about finding job in the near future is considered as another psychological aspect of unemployment. With respect to this we asked respondents how they see themselves within a time horizon of five years. The results show that about 15.1% think they will remain unemployed, whereas 22.7% do not have opinion. In contrast, about 39.7% of the respondents hope they will find formal job, while the remaining 22.5% would search for alternative opportunities such as employment in the informal sector (5.3%), emigration (13.1%) or retirement (4%). This finding reflects relatively mixed perceptions among unemployed workers regarding their future prospects on the labour market. The distribution of respondents' opinions with respect to the future labour market prospects is presented in Figure 3.

In order to assess the factors that influence the unemployed workers' perceptions of future employment prospects we further estimate a multinomial logistic regression, where as a reference category is

Figure 3: Perception of the labour market status after 5 years



considered “perceives himself after 5 years as yet unemployed”. Similarly, as in the case of estimating the impact of unemployment as a stressor, we divide the possible determinants in four groups: Personal traits, alternative adjustment mechanisms, household characteristics and policy treatment. Again, we are aware about the possible endogeneity problem and we

interpret the estimates with caution. The results from the estimated multinomial logistic regression are presented in Table 3.

From Table 3 we can notice that female respondents have on average 34.4% lower probability to perceive as employed after 5 years relative to unemployed as reference category, while this probability decreases by 7.9% and 25.2% for each additional year of age and additional level of unemployment duration respectively. In contrast, the relative probability of perceiving as employed after 5 years rather than unemployed increases by 33% for each additional level of education. In addition, this probability is about 76% and 84.4% higher for those respondents who reported that actively search for job and have another unemployed member in the household respectively.

Furthermore, we observe that the relative probability of being uncertain about the labour market status after 5 years is 33.8% and 28.4% lower for female unemployed and those living in rural areas respectively. In addition, the uncertainty decreases by 4.2% and 14.1% for each additional year of age and

Table 3. Estimated multinomial logistic regression for perception of employment prospects

Variable	Perceives himself after 5 years as employed			Perceives himself after 5 years as uncertain			Perceives himself after 5 years as engaged in the informal sector		
	Coeff.	Standard error	Diff. in odd ratio	Coeff.	Standard error	Diff. in odd ratio	Coeff.	Standard error	Diff. in odd ratio
Constant	2.0073	1.3450		1.7262	1.2824		3.9160	1.856	
Personal traits									
Gender	-0.4223***	0.1657	-34.4%	-0.4129**	0.1637	-33.8%	-0.5141**	0.2417	-40.2%
Age	-0.0818***	0.0096	-7.9%	-0.0434***	0.0090	-4.2%	-0.0530***	0.0138	-5.2%
Marital status	0.0383	0.1622		0.2296	0.1564		0.1656	0.2307	
Place of living	-0.3045	0.1876		-0.3346*	0.1836	-28.4%	-0.0955	0.2691	
Level of education	0.2855***	0.0583	33%	0.0648	0.0546		0.2818***	0.0872	32.6%
Duration of unemployment	-0.2910***	0.0345	-25.2%	-0.1524***	0.0349	-14.1%	-0.1846***	0.0487	-16.9%
Actively search for job	0.5652***	0.0768	76%	0.2215***	0.0697	24.8%	0.1053	0.1051	
Alternative adjustment mechanisms									
Has intention to emigrate	-0.1428	0.1038		0.0214	0.1011		-0.3417**	0.1584	-28.9%
Engaged in informal employment	0.0705	0.1652		0.0589	0.1624		-0.5343**	0.2392	-41.4%
Household characteristics									
Household size	-0.0020	0.0741		-0.0055	0.0717		-0.0475	0.1090	
Number of employed members	0.1504	0.1108		0.1836*	0.1096	20.2%	0.0862	0.1611	
Has another unemployed member(s)	0.6122***	0.1694	84.4%	0.5389***	0.1683	71.4%	-0.0971	0.2441	
Has retired member(s)	0.1429	0.1834		-0.0042	0.1797		-0.4960**	0.2543	-39.1%
Has emigrated member(s)	-0.0321	0.2506		-0.0681	0.2416		0.0753	0.3717	
Policy treatment									
Social assistance beneficiary	0.3640	0.2958		0.0287	0.2557		0.2059	0.4123	
Health insurance beneficiary	-0.2409	0.1669		-0.2321	0.1661		0.2282	0.2419	
Unemployment benefit recipient	0.4211	0.3000		0.3546	0.2814		-0.2253	0.3975	
Participation in active programmes	-0.3940	0.2761		-0.1204	0.2816		-0.3066	0.3728	

Note: *, ** and *** represent statistical significance at the 10%, 5% and 1% levels respectively.

Table 3: (continues) Estimated multinomial logistic regression for perception of employment prospects

Variable	Perceives himself after 5 years as employed abroad			Perceives himself after 5 years as retired		
	Coeff.	Standard error	Diff. in odd ratio	Coeff.	Standard error	Diff. in odd ratio
Constant	0.7840	1.6911		-12.5644	3.0936	
Personal traits						
Gender	-0.6488 ^{***}	0.2012	-47.7%	-0.0691	0.3212	
Age	-0.0946 ^{***}	0.0129	-9%	0.2338 ^{***}	0.0308	26.3%
Marital status	0.2005	0.1975		0.2959	0.2741	
Place of living	-0.8299 ^{***}	0.2436	-56.4%	0.0481	0.3884	
Level of education	0.0897	0.0711		0.1727 [*]	0.1028	18.9%
Duration of unemployment	-0.2439 ^{***}	0.0415	-21.6%	-0.1859 ^{***}	0.0619	-17%
Actively search for job	0.2691 ^{***}	0.0929	30.9	-0.0608	0.1308	
Alternative adjustment mechanisms						
Has intention to emigrate	1.5175 ^{***}	0.1438	356.1%	-0.1867	0.2290	
Engaged in informal employment	-0.3356 [*]	0.2001	-28.5%	-0.2983	0.3248	
Household characteristics						
Household size	0.0510	0.0922		0.1664	0.1423	
Number of employed members	0.0144	0.1337		0.2953	0.2069	
Has another unemployed member(s)	0.5356 ^{***}	0.2044	70.8%	0.0759	0.3270	
Has retired member(s)	-0.0004	0.2228		-0.3075	0.3332	
Has emigrated member(s)	-0.4461	0.2890		0.1491	0.4446	
Policy treatment						
Social assistance beneficiary	0.8469 ^{**}	0.4074	133.2%	0.5763	0.4758	
Health insurance beneficiary	-0.1357	0.2031		0.5070	0.3458	
Unemployment benefit recipient	-0.0226	0.3907		-1.3583 ^{***}	0.3955	-74.3%
Participation in active programmes	0.0249	0.3393		0.1447	0.5516	

Note: *, ** and *** represent statistical significance at the 10%, 5% and 1% levels respectively.

additional level of unemployment duration respectively. In contrast, the uncertainty about the future labour market prospects is 24.8% higher for those who actively search for job, 20.2% higher for an additional employed member in the household and 71.4% higher if the respondent's household has another unemployed member.

We further notice that relative probability of perceiving as engaged in the informal sector after 5 years is 40.2% lower for female, while it decreases by 5.2% and 16.9% for each additional year of age and unemployment duration level respectively. In contrast, this probability increases by 32.6% for each additional level of education. Additionally, the relative probability of perceiving as informally employed after 5 years is 28.9% lower if the respondent manifests intention to emigrate, 41.4% lower if the respondent is currently informally employed and 39.1% lower if the respondent's household has retired member.

Moreover, it is noticeable that relative probability of perceiving as employed abroad after 5 years is 47.7% lower for female unemployed, while it is 56.4% lower for respondents living in rural areas. In addition, this probability is 9% and 21.9% lower for each

additional year of age and additional unemployment duration respectively. In contrast, perceiving as employed abroad is 30.9% more probable for those who actively search for job and about 3.5 times more probable for those who have intention to emigrate. Finally, the relative probability of perceiving as employed abroad is 28.5% lower for those who are engaged in informal employment, but 70.8% and 133.2% higher if the respondent's household has another unemployed member and the respondent is social assistant beneficiary respectively.

Finally, we can notice that relative probability of perceiving as retired after 5 years increases by 26.3% for each additional year of age and increases by 18.9% for each additional level of education. In contrast, this probability is 17% lower for each additional unemployment duration level and is 74.3% lower if the respondent is unemployment benefit recipient. The pseudo R² of this model is 0.218, while the p-value of the calculated χ^2 which is 0.000 leads us to conclude that at least one of the regression coefficients in the model is not equal to zero.

5. DISCUSSION AND POLICY IMPLICATIONS

In this paper we have analysed the psychological implications of high and persistent unemployment in Macedonia with particular accent on unemployed workers' perceptions of stress and future employment prospects. With this regard, we have been particularly interested to assess the role of the alternative mechanisms such as employment in the informal sector, emigration and non-participation in shaping the unemployed workers' perceptions by cushioning the social and economic consequences of the high and persistent unemployment. For this purpose, we have carried out a survey in order to empirically assess the extent to which these adjustment mechanisms absorb a part of the unemployed workforce and/or contribute to their household income, which indirectly affects their individual perceptions of unemployment.

Considering the employment in the informal sector we found that considerable number of unemployed workers is engaged in various forms of informal employment. Furthermore, we revealed that income earned from additional informal activities represents more than one third of the total household income. Hence, employment in the informal sector alongside other forms of labour market adjustment significantly contributes to the well-being of the unemployed workers. However, most of the informal arrangements of the unemployed workers are low-productivity and small-scale predominantly in the agricultural and farming sector.

With respect to emigration we found that more than half of unemployed workers if they have the possibility will emigrate either permanently or temporarily. This intention is particularly emphasised among those who perceive unemployment as stressing situation and those whose living standard was the mostly affected by the recent economic crisis. Moreover, we revealed that only small proportion of unemployed have emigrated close relatives, but they heavily rely on the remittances that receive from them. Therefore, remittances alongside other forms of labour market adjustment significantly contribute to the well-being of the unemployed workers.

Regarding the unemployed workers' perceptions of stress, we found that the level of stress increases with the age, level of education and unemployment duration. From the point of view of human capital theory, these results are somewhat expected since the opportunity cost of unemployment increases with the level of education, while longer duration of unemployment has detrimental effects on the accumulated human capital. In addition, the unemployment is more stressful experience for those who actively search for job and those who manifest intention to emigrate and/or

have emigrated household members. Hence, by considering the emigration as an alternative coping strategy, the unemployed workers experience more stress which most probably is due to the related higher uncertainty. In contrast, having another unemployed or retired member(s) in the household would reduce the perceived level of stress that might be attributed to the easier adaptation to unemployment or support from inter-household transfers.

Furthermore, we revealed that the perception of future employment prospects by the unemployed workers is a complex phenomenon. In this context, the optimism to perceive as employed is particularly pronounced among those who actively search for job and have other unemployed household members. A similar pattern can be observed among those who are uncertain about their future labour market status which points out to an added worker effect as a response to a loss of real income due to unemployment. The perception of employment in the informal sector and emigration as alternatives to unemployment is more pronounced among younger, male and short-term unemployed. Generally, the unemployed workers consider the engagement in the informal sector as temporary solution to unemployment since being actually employed in the informal sector reduces the probability of perceiving as informally employed in the future. In contrast, the emigration has been considered as more prospective coping strategy which is consistent with the actual workers' intentions to emigrate and job searching behaviour.

From this analysis of unemployed workers' perceptions of stress and future employment prospects we have learned useful lessons that can guide decision makers in designing and applying appropriate policy measures in order to increase the employability and improve the psychological wellbeing of unemployed workers. First, the labour market issues should be tackled on both demand and supply side which means that increased number of created jobs must be accompanied with wise investments on the side of the quality of the labour force. Second, the possible intervention programmes should be tailored to suit the individual since the experience of unemployment is not the same for every unemployed person. In this context, the labour market segmentation might have serious negative implications on the labour market functioning that have to be set off by using appropriate policy measures. Third, a greater accent should be given to the active labour market policies and their complementarities with passive labour market policies. With respect to this, it is advisable to combine the job searching assistance with psychological assistance for those unemployed who may need it. Fourth, the

process of formalisation of jobs in the informal part of the economy has to be done prudently with an accent to the sustainability of the formalised jobs. Since, the informal employment has been generally considered as a strategy of last resort, the process of formalisation has to bring to unemployed workers a decent work defined as simultaneous pursuit of several objectives such as: income opportunities, social protection, fundamental rights at work and social dialogue. Fifth, the role of social transfers to non-participants should be reassessed and adequately redesigned in the light of the planned economic development. Hence, the very nature of economic development calls for addressing social protection and employment and income opportunities together, as part of the same policy package.

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