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Determinants of Labour Market Segmentation in Transition Countries with Particular Reference to Macedonia

1. Introduction

The process of transition in the former socialist countries, which started at the beginning of the 90s, has had a tremendous economic, political and social impact. Transition is a multidimensional process which includes systemic change in a number of spheres in society. In the economic sphere, the transition has been characterised by a change in the ownership of capital, liberalisation of goods and capital markets, liberalisation of foreign economic relations, a radical change in the role of the state in the economy, and the creation of a less regulated labour market. In the sphere of social life, the transition has led to rising poverty and income inequality, a weakening of the middle class and the exclusion of vulnerable social groups. Politically, the transition has been accompanied by the creation of a democratic society, differentiation of power into legislative, executive and judicial branches, the creation of a pluralistic political system and the implementation of public and democratic elections (Pechijareski and Rocheska 1998).

The initial transitional recession has inter alia manifested salient effects on labour market performance. Generally, the transitional reforms initially had negative effects on the labour markets, which resulted in declining participation rates and 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 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 the actual skills of the workers has become

a substantial problem (Svejnar 2002). Consequently, early transition labour markets became less dynamic, with a relatively stagnant unemployment pool leading to increases in general 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 and low probability of new employment (Nikoloski 2004).

The general trends on the Macedonian labour market resemble those typical of the transitional world in a number of aspects. However, the Macedonian labour market also shares some features peculiar to Southeast European countries. This is particularly relevant regarding the evolution of the unemployment rate, which rose sharply at the beginning of the transition and has remained stagnant thereafter, reflecting the depressed characteristics of the Macedonian labour market. Long spells of unemployment often lead to the degradation and dehumanisation of individuals in society, causing social exclusion and increasing the burden for the government of providing the necessary safety net. Consequently, the problem of unemployment is not only a personal problem for the people who experience it, but has become a problem for the economy as a whole.

The aim of this paper is to assess the determinants of labour market segmentation in transition countries by examining the case of Macedonia. To our knowledge this is the first study addressing this issue in Macedonia that sheds light on various causes of labour market segmentation among unemployed workers. In this context, in section 2 we first define the notion of labour market segmentation. Next, in section 3 we investigate labour market segmentation in transition countries and attempt to derive some general characteristics. The analysis of the labour market segmentation in Macedonia is the subject of section 4, followed by an empirical assessment of the determinants in section 5. Finally, in section 6 we conclude and formulate suitable labour market policies that target deprived labour market segments.

2. The notion of labour market segmentation

Segmentation literally means separation into different parts or a situation in which the entire population is divided into specific segments. In the labour market context, segmentation means that we can distinguish different segments in each of which demand for and supply of labour adjust independently from the other segments. In other words, in labour market segmentation the established rules of behaviour of the labour market actors in each segment are different from those in other segments. In labour market segmentation theory, the notion of non-competing groups has been developed.

According to this theory of labour market segmentation, the labour market segments can to some extent operate independently because jobs and workers in each segment match according to the particular conditions on the demand and supply side (Cain 1976). On the supply side, labour market segmentation occurs as a result of the differences among workers, such as age, gender, level of education, skills, professional preferences, etc. On the demand side, segmentation refers to the characteristics of the jobs, such as stability, wage level, required skills and education, etc.

Labour market segmentation can be differentiated along various attributes of the labour market. According to dual labour market theory, the labour market segments are differentiated by stability characteristics. In this context, the primary sector is characterised by higher levels of wages, health benefits and pensions as well as a greater degree of job security. By contrast, the secondary sector is characterised by a lower degree of job security whereas jobs require low-skilled workers and relatively little training. Moreover, primary sector jobs are rationed, which means that not all workers who are qualified for and desire one can also obtain one (Reich et al. 1973).

Some of the major dividing lines that have been identified among the labour market segments are occupational, geographical and industrial. Occupational segmentation occurs as a result of the specific characteristics of each occupation, which limits competition among workers with different professional backgrounds. Furthermore, spatial segmentation occurs as a result of relatively low geographical mobility of the labour force. As a consequence, regional disparities in unemployment and wage levels may persist for a long time. Finally, in contrast to non-unionised industries, unionised industries offer secure jobs and good working conditions, which is often associated with the primary sector.

3. Labour market segmentation in transition countries

The transition has created increased preconditions for a segmentation of society that has affected the functioning of the labour market (Nikoloski 2009). Over the past two decades the labour markets in most transition countries have been characterised by persistent unemployment rates, increased long-term unemployment and pronounced segmentation. The low probability of leaving unemployment has been a reason for human capital erosion among the workers who were employed in the previous system but could not adapt to the newly created ambience in society. The mismatch between the skill requirements of newly created jobs and workers' effective skills has become a substantial problem.

In their analyses of the officially published data a number of authors conclude

that workers in transition countries are not all equally affected by the unemployment problem (Blanchflower 2001; Cazes and Nesporova 2003; Rutkowski 2006; Nikoloski 2011). In these circumstances, specific demographic segments can be identified as being particularly affected, such as youth, some ethnic minorities (for example Roma), and less skilled workers. The increased risk of unemployment and/or non-participation among these segments compared to the remainder of the labour force has enormous social implications, such as rising poverty and income inequality.

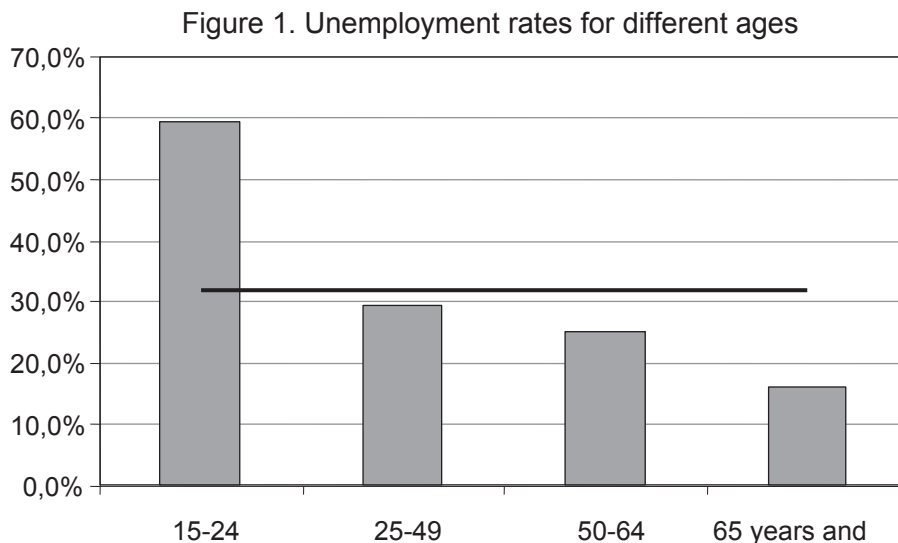
The existence of labour market segmentation in transition countries has already been a subject of empirical assessment. For instance, Pailhé (2003) has found that during the first years of transition the allocation of labour in Central European labour markets has differed from one segment to another. According to this author, labour market segmentation results from a growth of market uncertainty through a combination of new formal institutions and the presence of old informal ones. In addition, by using a flow analysis, Lehmann and Pignatti (2007) have identified the existence of a segmented labour market in Ukraine. They point out 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 such formal employment.

Keeping the above findings in mind, dealing with the increased labour market segmentation in transition countries represents a challenging task for policymakers. Most policy measures undertaken by the governments in transition countries include the reduction of extensive payroll taxes, improvement of social dialogue, establishing a balance between the adjustment flexibility of employment and income security for workers, and an increased emphasis on active labour market programmes (Cazes and Nesporova 2003). However, not all transition countries have successfully coped with the problem of labour market segmentation. In this context, the Commonwealth of Independent States (CIS) and the South-East European countries (SEECs), called 'lagging reformers', are still facing significant reform challenges.

4. The case of Macedonia

To illustrate the relevance of labour market segmentation in transition countries we further elaborate the case of Macedonia. The unemployment rate among the marginalised segments on the Macedonian labour market is considerably higher compared to the average unemployment rate. In this context, we particularly point out the unfavourable labour market conditions that youth and the less educated workforce are exposed to. For instance, in the fourth quarter 2011 the youth (from 15 to 24) unemployment rate was 59.4%, which is considerably higher than the average

unemployment rate (31.8%). Figure 1 shows the unemployment rates for different age groups according to Macedonian Labour Force Survey data, with the horizontal bold line representing the average unemployment rate.

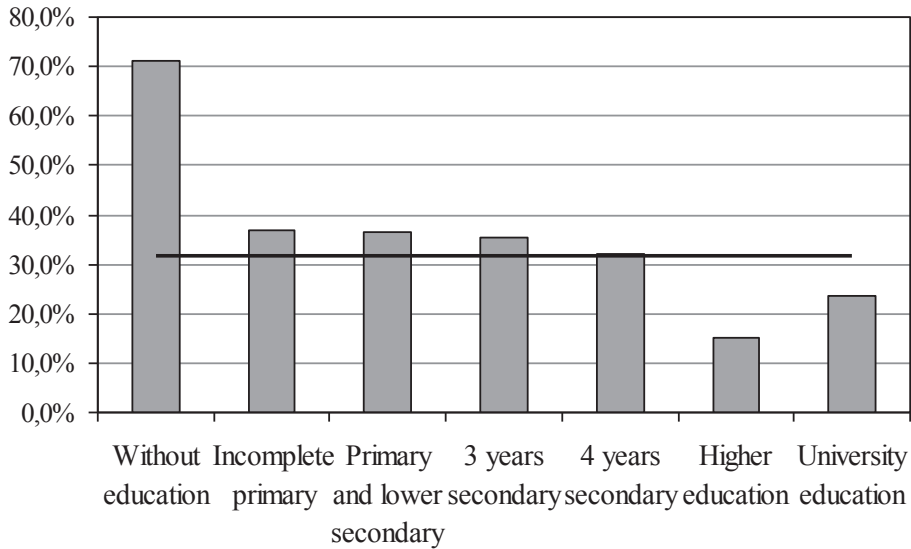


High youth unemployment is a characteristic of almost all transition countries (Blanchflower 2001; Cazes and Nesporova 2003; Rutkowski 2006). This is partly explained by supply factors such as lack of appropriate education or/and experience among young workers and partly by demand factors such as insufficient job creation. In addition, according to Rutkowski (2006), the high fraction of young labour market entrants among the unemployed in Macedonia can partly be attributed to legacies of the old system, such as the high degree of job protection granted to incumbent workers.

Similarly, the unemployment rate of the population without elementary school education in Macedonia is 71.3%, which is also significantly higher than the average unemployment rate. Again, like in other transition countries, we can conclude that in Macedonia the unemployed are mostly people with a lower level of education. Figure 2 shows the Macedonian unemployment rates with regard to level of education.

Furthermore, the Macedonian labour market is characterised by a relatively stagnant unemployment pool that has been translated into increasing long-term unemployment (Nikoloski 2009). This long-term unemployment has significantly contributed to an erosion of skills and motivation among the unemployed, making them less and 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

Figure 2. Unemployment rates with respect to the level of education



of unemployment and non-participation. After remaining unemployed for a longer period of time, a considerable part of the unemployed workers stops looking for jobs and quits the labour force. This is known as the phenomenon of ‘discouraged workers,’ a characteristic of depressed labour markets, where demand for labour is insufficient and unemployed workers face poor employment prospects.

When considering the marginalised categories, we assume that the same segments are most inclined toward informal employment arrangements or temporary emigration, where jobs are characterised by lower security and wages than in the formal sector. In Macedonia alternative labour market adjustment mechanisms such as employment in the informal sector, emigration and inactivity may play a crucial role in alleviating poverty among marginalised labour market segments (Nikoloski et al. 2012; Nikoloski 2012). Furthermore, the marginalised segments are affected by business cycle fluctuations more than the rest of the labour force, which is evident from the last economic recession (Nikoloski 2010). In addition, the personal perception of unemployment status represents an important source of delineation since in Macedonia long-term unemployment prevails over short-term unemployment, implying the existence of a ‘discouraged workers’ effect. Finally, labour market segmentation might be engendered by inappropriate policy measures such as active and passive labour market policies.

5. Empirical assessment

In this section we undertake an empirical analysis to assess the determinants of labour market segmentation among the registered unemployed in Macedonia. To our knowledge, in Macedonia there is a lack of consistent cross-section data about the possible determinants of labour market segmentation. To estimate to what extent the unemployed are disaggregated with respect to various factors such as personal perceptions, engagement in alternative forms of adjustment mechanisms as well as policy considerations, we have designed and carried out a survey based on a representative sample of registered unemployed workers. The survey was conducted during a reference period from mid-October to mid-November 2011; the sample consisted of 2,300 registered unemployed workers selected randomly in each of the 30 branch offices of the Employment Service Agency (ESA) all over the country. Due to a lack of exhaustive lists of the registered unemployed for confidentiality reasons, the interviewers were free to choose eligible respondents from their surroundings. The geographical distribution was maintained by selecting a proportionate number of registered unemployed respondents from each branch office.

To assess the factors influencing labour market segmentation in Macedonia with regard to the gender of the unemployed, we further estimate a Logit model. For this purpose, the dependent variable takes value one if the person is female, whereas in the opposite case it takes value zero. Among possible determinants of segmentation we take the following personal traits into consideration: (i) impact of unemployment on health, (ii) personal perception of future status, (iii) job search intensity, (iv) intent to emigrate, and (v) engagement in the informal sector. Additionally, the segmentation is estimated with respect to the following policy indicators: (i) being a health insurance beneficiary, (ii) being an unemployment benefit recipient, (iii) participation in the active programmes, and (iv) being a social assistance recipient. The results of the estimated model are presented in Table 1.

Table 1: Estimated Logit model for the female unemployed

Variable	Coefficient	Standard error	t-value	Diff. in odd ratio
Intercept	0.7421762	0.1580113	4.696980***	
Unemployment causes stressful situation or other health problems	0.0524343	0.1164237	0.450374	-36.0%
Perceives herself as unemployed after five years	0.3081501	0.1267962	2.430278**	-
Searches for job	-0.0729188	0.1154721	-0.631484	-40.5%
Has intent to emigrate	-0.5198411	0.0919919	-5.650945***	-
Earns income from additional activities	-0.5228638	0.0913813	-5.721781***	-40.7%
Health insurance beneficiary	-0.3214622	0.0913137	-3.520416***	-
Unemployment benefit recipient	-0.3929328	0.1668483	-2.355030**	-27,5%
Active programmes participant	-0.0802138	0.1476248	-0.543363	-
Social assistance recipient	-0.1160605	0.1695438	-0.684546	-32.5%

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

According to the results obtained, the probability of a female unemployed worker to perceive herself as unemployed after five years is about 36% higher compared to a male unemployed worker. Considering the alternative adjustment mechanisms, the female unemployed have an about 40.5% lower intent to emigrate compared to unemployed men. Additionally, they are about 40.7% less likely to be engaged in informal economic activities. With respect to the labour market policies we can notice that female unemployed are about 27.5% less likely to be health insurance beneficiaries and 32.5% less likely to be unemployment benefit recipients. Overall, it is evident that the gender of an unemployed worker represents a significant source of delineation since according to our findings unemployed women are considerably more disadvantaged than unemployed men.

Furthermore, we assess the factors influencing labour market segmentation in Macedonia with respect to the age of unemployed workers. According to the theoretical assumptions, due to a lack of human capital accumulation unemployed youth face greater hardships when trying to find jobs compared to more experienced workers. To identify the significant factors affecting the labour market prospects of unemployed youth we use a Logit model in which the dependent variable takes value one if the respondent is a youth, i.e. aged below 25 years. In the opposite case, the dependent variable takes value zero. Again, we take the same possible factors into consideration as in the previous model. The results of the estimated model are presented in Table 2.

Table 2: Estimated Logit model for unemployed youth

Variable	Coefficient	Standard error	t-value	Diff. in odd ratio
Intercept	-0.4376400	0.193521	-2.261464**	
Unemployment causes stressful situation or other health problems	-1.1850930	0.128971	-9.188854***	-69.4%
Perceives himself/herself as unemployed after five years	-1.7665518	0.257888	-6.850082***	-82.9%
Searches for job	0.4347931	0.160529	2.708495***	54.5%
Has intent to emigrate	0.5105261	0.118226	4.318219***	66.6%
Earns income from additional activities	-0.6408386	0.119205	-5.375935***	-47.3%
Health insurance beneficiary	-0.1066969	0.111216	-0.959365	-
Unemployment benefit recipient	-1.0874265	0.299040	-3.636389***	-66.3%
Active programmes participant	-0.0429795	0.184783	-0.232595	-
Social assistance recipient	-0.5823502	0.279073	-2.086732**	-44.1%

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

From the estimated model we can conclude that young unemployed workers are more optimistic compared to prime age and older workers. Unemployed youth experience an about 69.4% lower incidence of unemployment causing stressful situations or other health problems, and about 83% lower probability to perceive themselves as unemployed after five years. Moreover, the unemployed youth are more active on the labour market since they manifest a 54.5% higher probability to search for a job and 66.6% higher probability to emigrate. However, they engage about 47.3% less in the informal activities compared to more mature workers. Finally, the young unemployed are not treated appropriately by the labour market policies, since they are about 66.3% less likely to be unemployment benefit recipients and 44.1% less likely to be social assistance recipients. These results might be explained by the fact that young workers have lower eligibility for entitlements and a majority of them still live in larger family units together with their parents, who provide basic health and social insurance.

To assess the factors influencing labour market segmentation in Macedonia with respect to the place of living of unemployed workers (urban/rural), we estimate a further Logit model. In this model, the dependent variable takes value one if the respondent lives in a rural area, whereas in the opposite case it takes value zero. Again, we take the same possible factors into consideration as in the previous models. The results of the estimated model are presented in Table 3.

Table 3: Estimated Logit model for the unemployed in rural areas

Variable	Coefficient	Standard error	t-value	Diff. in odd ratio
Intercept	-1.2728721	0.182930	-6.958240***	-
Unemployment causes stressful situation or other health problems	-0.1239752	0.138553	-0.894787	34.3%
Perceives himself/herself as unemployed after five years	0.2947595	0.141344	2.085408**	-27.4%
Searches for job	-0.3198790	0.131083	-2.440279**	-
Has intent to emigrate	-0.1068848	0.110016	-0.971541	74.0%
Earns income from additional activities	0.5539115	0.107118	5.171032***	-
Health insurance beneficiary	0.1837058	0.111550	1.646843*	20.2%
Unemployment benefit recipient	-0.0111843	0.191701	-0.058343	-
Active programmes participant	-0.5279383	0.197869	-2.668115***	-41.0%
Social assistance recipient	0.6124778	0.179102	3.419713***	84.5%

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

From Table 3 we can gather that unemployed workers in rural areas experience about 34.3% higher probability to perceive themselves as unemployed after five years compared to unemployed who live in urban areas. Moreover, they are 27.4% less likely to search for a job, but they manifest considerably higher probability to engage in additional informal economic activities. According to our estimates, the rural unemployed workers earn about 74% more income from informal engagement that mainly consists of subsistence activities such as agriculture, farming and seasonal work in the country (Nikoloski et al. 2012). Considering treatment by labour market policies, we can conclude that unemployed from rural areas have an about 20.2% higher incidence of receiving health insurance from the ESA. Moreover, they are about 41% less likely to participate in the active labour market programmes and about 84.5% more likely to be social assistance recipients.

To assess the factors influencing labour market segmentation in Macedonia with respect to the level of education of unemployed workers we estimate a further Logit model. Based on the assumption that unemployed workers without education might be subject to marginalisation, the dependent variable in this model takes value one if the respondent has not completed elementary education. In the opposite case it takes value zero. Again, we take the same possible factors into consideration as in the previous models. The results of the estimated model are presented in Table 4.

Table 4: Estimated Logit model for the unemployed without elementary education

Variable	Coefficient	Standard error	t-value	Diff. in odd ratio
Intercept	-2.0588229	0.254285	-8.096509***	
Unemployment causes stressful situation or other health problems	-0.0630678	0.208420	-0.3026001	-
Perceives himself/herself as unemployed after five years	1.0781994	0.176603	6.1052183***	193.9%
Searches for job	-0.7821295	0.175439	-4.4581106***	-54.3%
Has intent to emigrate	-0.0848131	0.165368	-0.5128943	-
Earns income from additional activities	0.2360849	0.161915	1.4580761	-
Health insurance beneficiary	-0.3910163	0.165227	-2.3665445**	-32.4%
Unemployment benefit recipient	0.2594415	0.254622	1.0189279	-
Active programmes participant	-0.0077335	0.270420	-0.0285972	-
Social assistance recipient	1.3440760	0.213367	6.2993552***	283.5%

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

Based on the estimated results, we can see that unemployed workers without elementary education face unfavourable conditions on the labour market. The likelihood to perceive themselves as unemployed after five years is twice as high compared to those who have completed at least elementary education. Furthermore, they manifest about 54.3% lower probability to search for a job, which means that they are more likely to become part of the category of 'discouraged workers'. Finally, they are about 32.4% less likely to be health insurance beneficiaries, but have almost three times higher probability of being social assistance recipients. Therefore, given their poor labour market prospects, social assistance represents the main source of subsistence for uneducated unemployed workers.

Finally, to assess the factors influencing labour market segmentation in Macedonia with respect to the duration of unemployment we estimate a corresponding Logit model. Assuming that workers unemployed long-term might be subject to marginalisation due to the effect of human capital depreciation, the dependent variable in this model takes value one if the respondent is long-term unemployed, whereas in the opposite case it takes value zero. Again, we take the same possible factors into consideration as in the previous models. The results from the estimated model are presented in Table 5.

Table 5: Estimated Logit model for the long-term unemployed

Variable	Coefficient	Standard error	t-value	Diff. in odd ratio
Intercept	0.447449	0.186233	2.402627**	158.2%
Unemployment causes stressful situation or other health problems	0.948452	0.128143	7.401533***	321.9%
Perceives himself/herself as unemployed after five years	1.439653	0.233660	6.161305***	–
Searches for job	–0.102252	0.149700	–0.683047	–27.3%
Has intent to emigrate	–0.318258	0.116552	–2.730600***	–
Earns income from additional activities	0.280422	0.116096	2.415421**	32.4%
Health insurance beneficiary	0.213806	0.111741	1.913407*	23.8%
Unemployment benefit recipient	–0.355797	0.206832	–1.720221*	–29.9%
Active programmes participant	0.113011	0.184463	0.612647	–
Social assistance recipient	0.910196	0.285760	3.185175***	148.5%

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

From Table 5 we gather that just as workers without elementary education the long-term unemployed are among the most deprived workers on the Macedonian labour market. They manifest a 158.2% higher incidence of suffering from stressful situations and health problems caused by their unemployment status, whereas the likelihood to perceive themselves as unemployed after five years is more than three times higher compared to workers unemployed short-term. Moreover, they have a 27.3% lower intent to emigrate and 32.4% higher probability to earn income from additional informal activities. Given the limited duration of unemployment benefits, these workers are not eligible for such entitlements, but on average they are about 148.5% more likely to benefit from social assistance as a main source of subsistence.

6. Conclusions and policy recommendations

In this paper we have made an attempt to analyse the determinants of labour market segmentation among unemployed workers in transition countries by paying particular attention to the case of Macedonia. The two-decade period of transition has inter alia produced enormous social implications including the segmentation of the labour markets. From the analysis we can conclude that in Macedonia there is pronounced labour market segmentation of the registered unemployed population with respect to

personal perceptions, use of alternative labour market adjustment mechanisms and coverage by policy measures.

Keeping the above analysis of the relationship between labour market segmentation and labour market adjustment mechanisms for the unemployed in mind, we can draw several conclusions and arrive at a number of policy implications. First, labour market segmentation in Macedonia represents a significant problem that particularly affects certain disadvantaged labour market segments. With respect to the personal perception of unemployment, the long-term unemployed and those without elementary education are particularly affected, whereas female unemployed and unemployed in rural areas are affected to a lesser extent. By contrast, it seems that unemployment does not cause stressful situations or other health problems among unemployed youth, who are also more optimistic about their future employment status.

Second, taking into account the insufficient job creation in the formal sector, most unemployed workers resort to various forms of labour market adjustment mechanisms to alleviate the negative social consequences of unemployment. In this context, the unemployed youth manifest a pronounced intent to emigrate, whereas the unemployed in rural areas are prone to informal employment arrangements which mainly consist of subsistence farming. On the other hand, it seems that unemployment status does not discourage unemployed youth to search for a job, whereas it significantly lowers the search efforts among the unemployed in rural areas and workers unemployed long-term.

Third, policy measures should target the most vulnerable segments of the unemployed population to provide appropriate employment opportunities in the formal sector. In particular, we have found that female, young and long-term unemployed workers are covered by the passive labour market policies to a lesser extent, while the unemployed in rural areas are underrepresented in the active labour market programmes. In addition, the unemployed in rural areas, those without elementary education and the long-term unemployed have a pronounced incidence of receiving social assistance. Therefore, the case of Macedonia shows that labour market policy measures – albeit seemingly provided only to a small proportion of the unemployed population – can often be substituted with other ‘bridging schemes’ such as social assistance.

The incentives to register as unemployed in Macedonia originate in the relatively generous eligibility for other entitlements rather than in the generosity of the unemployment benefits themselves, a situation common in other transition countries as well. Furthermore, the easy access to these entitlements renders various other adjustment mechanisms, such as employment in the informal sector or temporary/seasonal emigration, more attractive alternatives for those not employed in the formal sector. As a consequence, when undertaking measures to restrict the generosity of

unemployment benefits the government has to account for at least two important issues: first, the incentives created by other entitlements tied to unemployment registration; and second, possible overlaps between registered unemployment and other labour market adjustment mechanisms. In other words, less generous passive labour market policies that are not accompanied by sufficient additional job creation in the formal sector are unlikely to cause a decrease in the unemployment rate.

Even though the scope of active labour market programmes carried out by the ESA in Macedonia is relatively large, their coverage is relatively modest. In our view, emphasis should be put on apprenticeship programmes to increase the employability of the young unemployed and to avoid that they lack skills when they enter the labour market. Additionally, the preparatory programme for employment needs to provide training for registered unemployed workers from disadvantaged segments to improve their competitiveness and employability on the labour market and to enhance the matching process between demand and supply of workers with appropriate skills. With regard to the targeting of disadvantaged labour market segments, a lack of coordination among the key institutions and social partners has been identified. Therefore, future policy recommendations should focus on overcoming this lack of coordination among the institutions and social partners as well as encouraging their greater involvement in the process of anticipating skills in demand.

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