IZA

POLICY PAPER SERIES

IZA Policy Paper No. 14

Macedonia's Accession to the EU and the Labor Market: What Can Be Learned from the New Member States?

Hartmut Lehmann

February 2010

Forschungsinstitut
zur Zukunft der Arbeit
Institute for the Study
of Labor

Macedonia's Accession to the EU and the Labor Market: What Can Be Learned from the New Member States?

Hartmut Lehmann
University of Bologna
and IZA

Policy Paper No. 14
February 2010

IZA

P.O. Box 7240
53072 Bonn
Germany

Phone: +49-228-3894-0
Fax: +49-228-3894-180
E-mail: iza@iza.org

IZA Policy Paper No. 14
February 2010

ABSTRACT

Macedonia's Accession to the EU and the Labor Market: What Can Be Learned from the New Member States?*

The paper was produced as a background paper on labor issues for the UNDP study "Convergence to the European Union: Challenges and Opportunities." It first looks at the issue of how the labor market institutions of an acceding country like Macedonia should be shaped to further the integration of the acceding economy into the European economic space. The successes and the failures of the labor market reform efforts of the new member states are discussed to give some guidance to the discussion. Second, we briefly discuss the assistance programs provided by the European commission to help candidate states in this reform process. Macedonia is the country in Europe with one of the highest unemployment rates and a very large incidence of long-term unemployment. A third area of discussion in the paper is, therefore, the development and implementation of passive and active labor market policies that guarantee an equitable and efficient use of governmental resources given the stylized facts of Macedonian unemployment.

JEL Classification: J08, J20, J24, J26, J30, J48, P23

Keywords: European Union, accession, labor market institutions, labor market reform, labor market policies, high and persistent unemployment, Macedonia

Corresponding author:

Hartmut Lehmann
Department of Economics
University of Bologna
Strada Maggiore 45
40125 Bologna
Italy
E-mail: hartmut.lehmann@unibo.it

* This paper has served as a policy primer on labor market issues for the project "Convergence to the European Union: Challenges and Opportunities" commissioned by the Macedonian Ministry of Finance and supported by UNDP. I am grateful to Jozef Brada, Randolph Bruno, Nikica Mojsoska-Blazevski and Norberto Pignatti for very helpful suggestions and comments. None of the mentioned institutions are responsible for the content of the paper.

I. *Introduction*

Accession to the European Union (EU) has generated opportunities and challenges for the New Member States (NMS)[1] as far as the labor market is concerned. When prospects are certain that a country will join the EU, FDI flows become continuous and solid, creating jobs in the labor market of the country that accedes. This job creation will be more pronounced the better the skill profile of the workforce of the joining country is. Being part of an internal market permits free movement of labor in principle often easing the demographic pressures on the domestic labor market. Outward migration might, however, also result in "brain drain" depriving a new member state of those sections of the workforce that are especially vital for productivity growth. The main challenge of EU membership consists in ensuring that the labor market becomes competitive in a broad sense (Bruecker et al., 2002 and Rutkowski, 2007). If we think about this competitiveness from the labor demand side, this implies that labor market institutions, regulations in general and the tax system all need to be shaped in such a way as to boost the willingness of firms to create jobs. When we focus on the supply side reforms need to have at least a two-fold thrust to ensure that the workforce in the new member state is competitive with workers elsewhere in the union. First, skill levels of workers need to be developed in tune with the demand of domestic but also of multinational firms if a country wants to claim a decent place in the international production chain. Second, the social benefit system has to be structured in such a way as to target those who really need help and, at the same time, ensure that the incentives are pushing workers to prefer work over unemployment or inactivity.

Since migration is not part of my brief I will focus on the competitiveness issue understood broadly.[2] Changing the behavior of workers and firms is a long-term process and most of the NMS have spent at least a decade before accession to improve the performance of their labor markets by reforming their institutions. In other words, while there are some specific issues connected to accession per se, the important issues as far as the labor market is concerned have more to do with managing the reforms in the labor market in such a way that it ensures a transition as smooth as possible from an economy closed to world markets to one integrated in world markets (and in particular in EU markets). The more the reforms of the labor market are related to making the economy more competitive in an integrated world in general the fitter the economy is once accession occurs. While accession does seem to give a boost to job creation in the NMS this boost only occurs because the NMS have, at least partially, been successful in restructuring their economies and in reallocating labor from declining to expanding firms and sectors increasing labor productivity in a genuine fashion and not just by labor shedding (Rutkowski, 2007). However, according to many observers, the NMS have not pursued labor market reforms consistently enough, and more consistent and coherent reforms could have produced

[1] We consider the four Visegrad countries, the Baltic states and Slovenia, i.e. the transition economies which acceded to the EU in 2004 as the NMS in what follows.

[2] I will not discuss the issue of large regional disparities of labor market performance that we observe in all NMS. Policies at least thus far have not been successful in achieving a convergence of regions within countries (Perugini and Signorelli, 2004). In addition, since there has been a substantial consulting effort regarding labor taxation and how its reform can increase employment in Macedonia (see, e.g., Leibfritz (2008), I will also not focus on this issue.

an even better performance of their economies after 2004. We will discuss these failings critically when analyzing the lessons for Macedonian accession.

A discussion of lessons for Macedonia makes only sense if we are aware of the peculiar nature of the Macedonian economy and of its labor market. To put the Macedonian economy in relative perspective we first compare its employment structure in 2006 and 2007 with the employment structures of Poland and Ukraine, where for these latter two countries we give snapshots of early and late transition (Table I.1). The employment structure is shown by sector, the share of private and self-employment in total employment as well as the share of workers working in small firms (less than 50 employees). In order to make the last three statistics comparable across countries we have excluded employment in agriculture from the calculations. Larger values for these latter three statistics are considered an indication that the economy finds itself closer to a market economy. Also, we can think of Poland as a relatively advanced transition economy while Ukraine can be considered a "laggard" in the transition process.[3]

The peculiar nature of the Polish economy among the NMS is shown in the first panel of Table I.1. Even by 2004 more than one fifth of all employment is in agriculture, which is a legacy of private farming throughout the Communist period. It is striking that Macedonia has a share of agricultural employment similar to Poland's share, in spite of different historic developments. So, we can take this large share in agriculture as a measure of the underdevelopment of the Macedonian economy. This lower development can also be seen by the fact that in 2007 Macedonia has less workers employed in services than Poland and Ukraine a few years earlier. However, when we slice the employment data by ownership, Macedonia looks rather good with a larger share of employment in the private sector than both Poland and Ukraine.[4] In 2007 non-agricultural self-employment in Macedonia has a far lower share than in Poland in 2004, but is substantially more important than in Ukraine. The incidence of employment in firms with less than 50 employees represents a measure of convergence towards a market economy. Since a larger incidence implies more proximity to a market economy, Macedonia performs relatively poorly on this measure. Even in Ukraine more workers are employed in small firms than in Macedonia.[5] On this evidence it seems that many Macedonian workers are stuck in large firms and that the net growth of new smaller firms in the Macedonian economy has been very limited throughout transition.

We can also ascertain the relative position of the Macedonian economy by looking at gross job flows. Table I.2 shows such flows on a tri-annual basis for the years 1997 to 1999, 2000 to 2002 and 2003 to 2005, which are calculated from the

[3] The choice of countries is primarily dictated by data availability; for Poland and Ukraine we have large micro data sets at our disposal, while for Macedonia we have access to the micro data of waves from the years 2006 and 2007.

[4] The shares given for Macedonia might be an under estimate since they are calculated with a dichotomous variable where we have 1 for employment in the private sector and 0 for employment in social, mixed, collective and state firms.

[5] The sharp rise in this measure from roughly 30 to 41 percent between 2006 and 2007 is entirely driven by a 12 percent rise in the incidence of employment in micro firms (less than 10 employees). We do not have an explanation for this expansion in micro firm employment.

BEEPS data set.[6] The data cover nearly all sectors of the economy, with only health and education and public administration excluded. We summarize the five gross job flow rates that are conventional in the literature (Davis, Haltiwanger and Schuh, 1996) for the EU-8, for Bulgaria and Romania jointly and for Macedonia. The flow rates for the individual countries are shown in Table A.1 in the annex. The Macedonian economy lags for the entire period markedly behind the NMS as far as job creation and excess job reallocation is concerned. The excess job reallocation rate is often taken as a measure of genuine restructuring. A comparison of the early to the last period also shows the striking result that in the period 2003 to 2005 the job creation and job destruction rates are close to each other for the EU-8 and Romania and Bulgaria while job destruction clearly dominates in the early period. In other words, in the latter period these economies are finally able to nearly create as many jobs as they destroy and we can think of such a state of affairs as late transition. The Macedonian economy, on the other hand, seems finally to have entered a transition phase in the years 2003 to 2005 insofar as job destruction reaches levels comparable to what the NMS experienced in the 1990s. The Macedonian economy, however, shows very little capacity of job creation even in the years 2003 to 2005.

[6] The Business Environment and Economic Performance Surveys undertaken in 1999, 2002 and 2005 by the World Bank and EBRD provide information on employment level at time t and t-3, which enables us to calculate gross job flows. The calculated rates should be considered lower bounds given the interval length. They are, however, instructive when compared across groups of countries.

Table I.1: Employment structure by sector, ownership and size: Macedonia, Poland and Ukraine

	Sector				Ownership			Size
Country and year	**Agriculture (%share)**	**Industry (%share)**	**Services (%share)**		**Private (%share)**	**Non agricultural self-employed (%share)**		**Employed in Firms with empl.<50 (%share)**
Macedonia								
2006	23.16	30.91	45.93		56.85	6.06		29.55
2007	21.32	30.86	47.83		61.94	6.13		41.33[3]
Poland								
1994	25.46	31.21	43.34		27.61	10.42		50.38
2004	22.04	27.94	50.02		58.99	10.36		50.15
Ukraine								
1997	16.30	26.21[1]	52.89		20.06	2.02		30.13
2004	13.59	23.07[1]	59.18		39.68[2]	4.36		43.52

Sources: For Poland and Macedonia, own calculations based on LFS data. For Ukraine, Lehmann, Pignatti and Kupets(2005)

Notes:

[1]Share of employed in Public Administration (PA) not shown – The PA share stays roughly at 4% during the whole period (1991-2004)

[2]Includes collective enterprises

[3]Sharp rise in the statistic due to 12% increase in the employment share of micro firms (less than 10 employees).

Table I.2 : Tri-annual gross job flows in New Member States and Macedonia

	Job Creation Rate	Job Destruction Rate	Job Growth Rate	Job Relocation Rate	Excess Job Relocation Rate	N. of Observations*
1999						
New Member States (8)	0.060	0.131	-0.071	0.191	0.121	1,120
Bulgaria and Romania	0.067	0.152	-0.085	0.219	0.134	241
Macedonia	0.027	0.047	-0.020	0.073	0.054	119
2002						
New Member States (8)	0.072	0.103	-0.031	0.175	0.145	1,873
Bulgaria and Romania	0.105	0.106	-0.001	0.211	0.210	496
Macedonia	0.019	0.084	-0.065	0.102	0.038	163
2005						
New Member States (8)	0.092	0.109	-0.016	0.201	0.185	2,907
Bulgaria and Romania	0.100	0.139	-0.038	0.239	0.201	863
Macedonia	0.034	0.137	-0.103	0.170	0.067	193

Note: * Number of Firms in the survey.
Source: Business Environment and Economic Performance Surveys, 1999, 2002, 2005, WB and EBRD.

The dominance of job destruction is also reflected in the incredibly small worker flows out of the states of unemployment as reported in Angel-Urdinola and Macias (2008) for the interval 2005-2006. The annual transition rate from unemployment to employment is approximately only 10.2 percent.[7] When we calculate an annual outflow rate from the unemployment register into employment, we get 16 percent for the year 2007. These rates can be compared with transition rates in the 1990s from unemployment into employment between the highest rate of about 50 percent in the Czech Republic and the lowest of roughly 25 percent in the Slovak Republic (Boeri and Terrell, 2002). The stagnant nature of the very large unemployment pool (about 37 percent of the labor force!) is also glaring when looking at the duration structure of the registered unemployed in Macedonia. About 85 percent of the registered unemployed have (supposedly) an uninterrupted jobless spell of more than one year, i.e. are long-term unemployed. Another failure of the Macedonian labor market consists in the extremely low employment rate amounting to about 40 percent of the working age population.

Macedonia is one of the worst performing economies in Europe, both in terms of unemployment and employment rates. We, therefore, look at measurement issues and at reasons for this bad performance in the next section. Section III will then discuss the reform efforts of the NMS both from the demand and from the supply side highlighting achievements as well as partial failures. One of the foci of this discussion will be how much these reform efforts have contributed to the better labor market performance that we observe since accession. In a following brief section we highlight the financial instruments that are available to candidate and member states. These funds have been made available explicitly to further the aims of the Lisbon Strategy. Section V surveys the important issue of the use of Active Labor Market Policies (ALMP) and their proper targeting. A final section gives some brief policy recommendations.

II. Participation, employment and unemployment in the NMS and in Macedonia

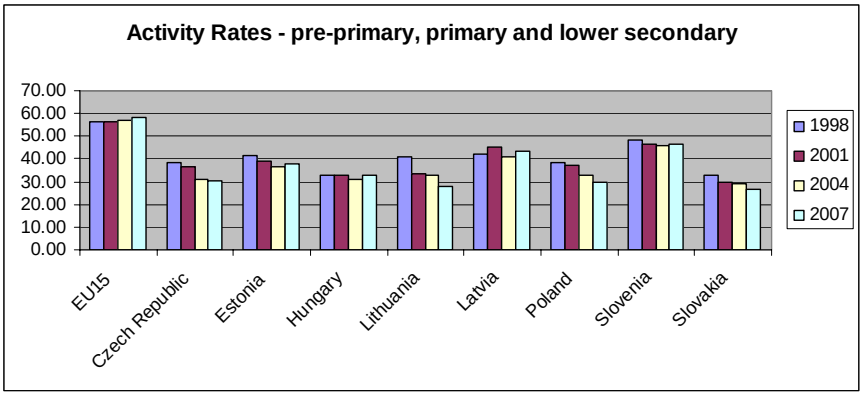
II.1 The structure of labor market states and their trends in the NMS

We begin with activity or participation rates. Figure II.1 presents these rates for the least skilled workers, covering the years 1998, 2001, 2004 and 2007. In the first two years we observe "jobless growth" in virtually all NMS, a phenomenon discussed at the end of section III. The years 2004 and 2007 fell in a period of strong employment growth, when firms started to increase hires substantially. Participation in the labor market by workers with only low level education is far lower in the NMS than in the EU-15. This lower activity rate is due to lower rates of the young and older workers as inspection of the three panels in figure A1 makes clear. The particularly low activity rate of the young could be caused by several developments: more involvement of young workers in the informal sector, the unwillingness of the low skilled young to enter the labor market at all, longer

[7] The transition rate from unemployment to employment is approximate since the authors normalize the rates not by the origin states as is usually done but by the destination state. Since the stock of employment in 2006 was 570404 and unemployment was 323934 in 2005 we inflate the number 5.8 percent given in Angel-Urdinola and Macias (2008) by the ratio of the two stocks, i.e. by 1.75. Having LFS data for 2006 and 2007 we would have liked to build a panel in order to properly estimate transitions between labor market states. Unfortunately there were too many problems with the construction of the panel and we could not perform this task.

spells in full-time education or relatively few opportunities of part-time employment. Many older workers with low educational attainment find it particularly difficult to adjust to the new conditions, thus they might become "discouraged workers" and withdraw from the labor market.

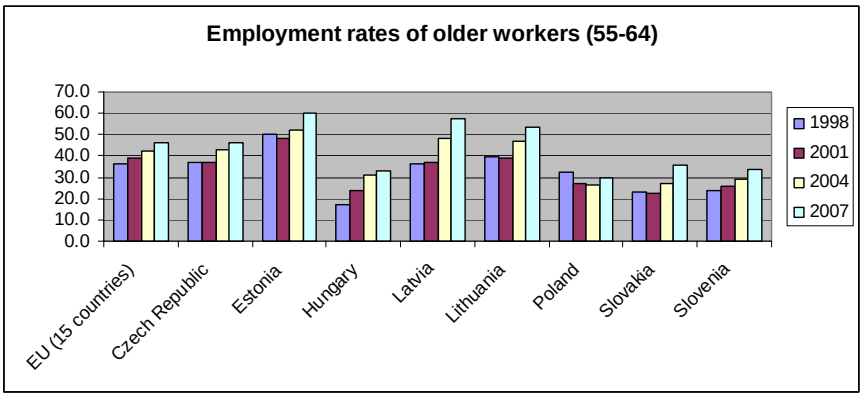
Figure II.1 Activity rates – New member states and EU-15



Source: Eurostat

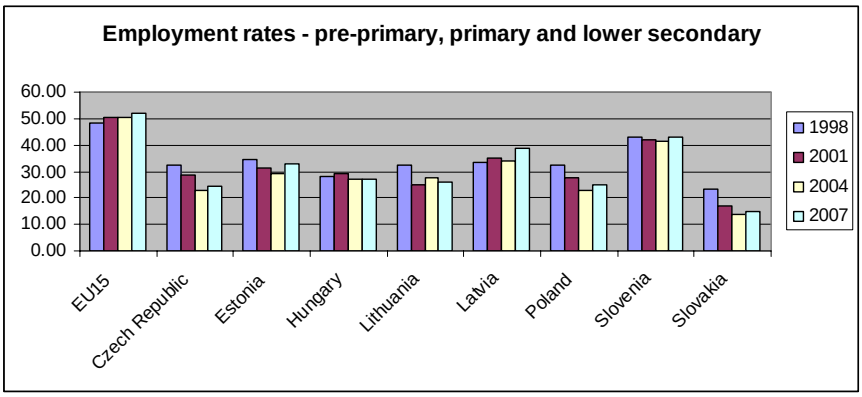
The overall employment rates, which are not shown here, are quite similar to the EU-15 averages, at roughly 70% for male workers and between 50% and 60% for female workers. The overall data also show that there is an increase in the employment rate for most NMS in the years 2004 and 2007. The employment rates of older workers (55-64 years of age) and with low educational attainment show far lower employment rates apart from Slovenia than the EU-15 (figures II.2 and II.3). For most NMS we also see an upward trend in the years 2004 and 2007. Workers with tertiary education have higher employment rates in the NMS as panel B in figure A2 shows, where we also see a strong jump in employment in the boom year of 2007.

Figure II.2



Source: Eurostat

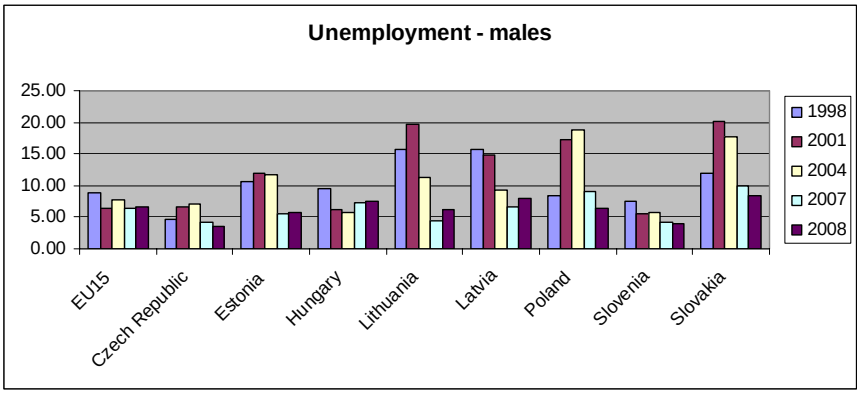
Figure II.3



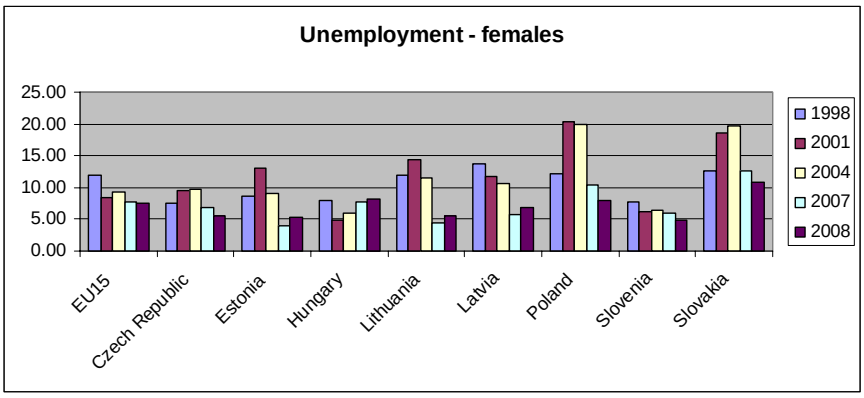
Source: Eurostat

Unemployment is larger in most NMS than the averages of the old member states. What we also see is a steep fall in the unemployment rates in 2007 for six out of eight countries; only Hungary and Slovenia, which have low unemployment rates throughout the period, do not show this downward trend (figure II.4). Slicing the data by education and age as is done in figures A3 and A4 leads us to conclude that workers with low and medium level education have higher unemployment rates in the NMS, while workers with tertiary education in the EU-8 have lower unemployment in some years than the averages of the EU-15 countries. The downward trend for the years 2004 and 2007, on which we commented above, is valid for all educational categories. Unemployment is also larger in all age groups in most of the NMS and shows the same downward trends. Like in the EU-15 countries youth unemployment rates are much higher than the unemployment rates of the other age groups.

Figure II.4
Panel A



Panel B

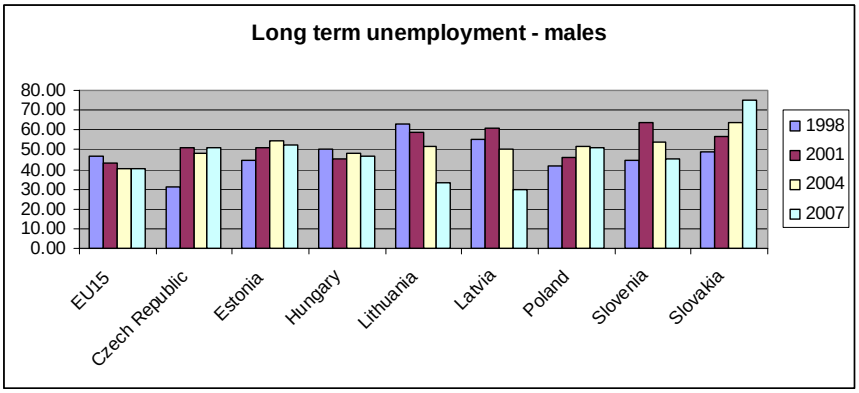


Source: Eurostat

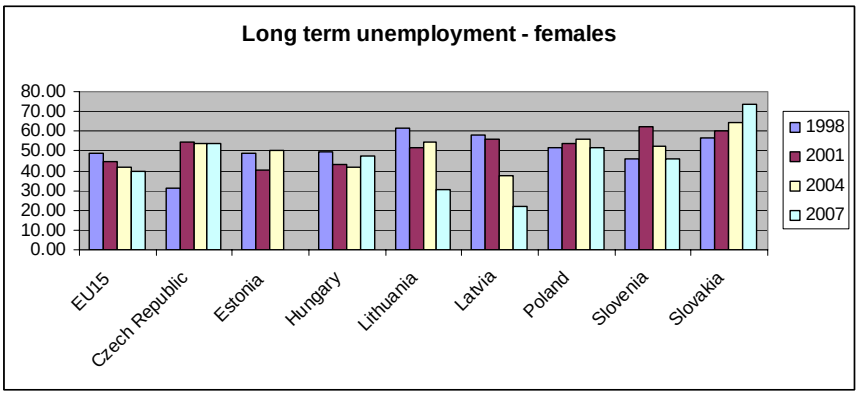
The incidence of long-term unemployment is higher in many NMS by at least 10 percentage points. This holds for both males and females. The most interesting finding is however, that only in Lithuania and Latvia do we see a sharp fall of the fraction of long-term unemployed, while in the other NMS the boom does not reach the long-term unemployed.

In summary, the least skilled among young and older withdraw from the labor market to a much larger degree than this happens in the EU-15. This withdrawal can be explained by the inability or the unwillingness of these workers to adapt to the new labor market conditions during the transition process. Those older workers and workers with low education who remain in the labor market find less employment opportunities than their counterparts in the old member states. The age group most affected by unemployment is the young like in the EU-15, the youth unemployment rates are, however, substantially higher in the NMS. Finally, long-term unemployment is more severe in the NMS. The most striking fact is that in general the long-term unemployed do not benefit from the strong upturn after 2004. Having identified the "problem groups" in the workforce of the NMS, we will at various places in this report discuss whether and how these groups should be helped to further their reintegration into the labor market or into gainful employment.

Figure II.5 Incidence of long-term unemployment
Panel A



Panel B



Source: Eurostat

II.2 Participation, employment and unemployment in Macedonia

The data on the Macedonian labor market provide a rather grim picture if we take these data at face value. Participation and employment rates are low and the unemployment rate is extremely high in international perspective.[8] Angel-Urdinola and Macias (2008) provide a detailed picture of participation and employment for the years 2004 to 2006. We will, therefore, briefly describe those groups among the Macedonian working age population that have particularly low rates.

On the urban-rural divide, the group that has particularly low participation rates refers to women in rural areas. Women of Albanian origin have very low participation within this group. Slicing the data not only by gender but also by education and age, Angel-Urdinola and Macias show that women with primary education and less have participation rates between 25% and 28%, while females with university education have between 87% and 91%. While their male counterparts have the same rates, the least educated males have participation rates that are only 25 percentage points lower. Among the core group of female workers (25-54 years of age) roughly two thirds are economically active, while roughly a third of the young and a fifth of the older females (55-64) are engaged in the labor market. Core male workers, on the other hand, have very high participation rates (between 88% and 92%), while for the other two groups the ranking is different than that among females. Young workers have the lowest participation rates among males amounting to about 40%, while roughly half of the older male workers are economically active. A final result worth mentioning are the low transitions from school to employment in Macedonia, with quite a substantial part of school leavers entering the state of unemployment.

The overall employment rates reported by Angel-Urdinola and Macias rose from 36% in 2004 to 40% in2006. In international perspective these rates are among the lowest in Europe and very far from the 70% stipulated by the Lisbon Strategy. Even males in the core age group (35-54) have employment rates of only between 63% and 65% in these

[8] The discussion of participation and employment is based on secondary sources, in particular Angel-Urdinola and Macias (2008), Betcherman and Pagés (2008) and Jackman (2007). The analysis of unemployment is based on short monthly time series of registered unemployment, which include the years 2006 to 2008 and on Macedonian LFS data for the year 2007 (the data for 2006 are at first sight somewhat problematic and are not used in the analysis of unemployment).

years, while females in this age group have been 43% and 44%. One worrisome issue is the relatively high employment share in the primary sector (about 20%), pointing to underutilization of labor and hidden unemployment in the Macedonian economy. In actual fact, the increase in employment is mainly due to jobs created for young workers in the primary sector. As the incidence of unpaid workers rose in this sector from 67% to three quarters, virtually all the employment growth observed in Macedonia in these years comes through the creation of low skilled and low quality jobs that are mainly not paid. However, Angel-Urdinola and Macias also show that with increasing age the share of salaried employees rises.

Among wage earners, there are large differences in the quality of jobs. While a majority holds formal jobs with a permanent contract, there is a substantial minority of employed wage earners who hold an informal job (defined as not being registered in the pension fund). Informality has a higher incidence among the young, among ethnic minorities, in the private and in the primary sectors and in rural areas. The informally employed are often also under-employed; those who wish to work more have a share among the informally employed that is roughly 10 percentage points higher than among the formally employed, with about 18% for the young and 15% for workers between 25 and 54 years.

We gain some additional insights about employment in Macedonia by performing simple probit regression estimating the probability of being employed. Table A.2 in the appendix shows two sets of regressions: one set with demographic covariates and one set with the same covariates plus labor market status in the previous year as a proxy for unobserved characteristics. From the regressions where previous labor market status is not controlled for we can infer that females are roughly 5 percentage points less likely to be employed, that employment and age are positively correlated albeit at a decreasing rate and that the more educated a person is the more likely s/he is to be employed. It is noteworthy that the educational dummies retain their large coefficients even when we control for previous labor market status while the other variables become insignificant.

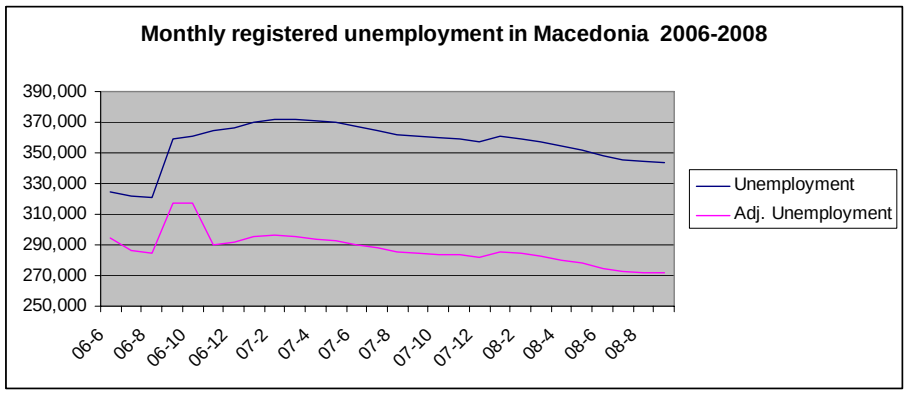
The upshot of the presented employment number is that employment rates are very low in Macedonia, that among the employed we have a substantial proportion of workers who seem under-employed, and that most of the job growth between 2004 and 2006 refer to jobs with very low skill content. So, finding more employment opportunities for the non-employed and ensuring growth in high quality jobs is a major challenge in Macedonia.

Our discussion of the main unemployment trends and features relies on both register and LFS data (cf. tables II.1 and II.2). The unemployment figures are placing Macedonia among one of the worst performing economies in Europe. From the LFS data we know that from 2004 to 2006 the unemployment rate fell from 38% to 36% (Angel-Urdinola and Macias, 2008). Taken at face value, these numbers imply that Macedonia has the highest unemployment rate in Europe and the region. Angel-Urdinola and Macias in their analysis of LFS data come to the conclusion that the unemployment stock falls into two types of unemployed, first job seekers and displaced workers. While the incidence of first job seekers is very high among the young (around 90%), even among workers aged between 35 and 54 roughly 30% are first job seekers. Since in addition the share of long-term unemployment lies between 85% and 90% (cf. tables II.1 and II.2), this means that even among the core age group we have many long-term unemployed who never held a job before.

There are, however, at least two caveats that have to be mentioned when citing such high unemployment numbers. First, in the years 2007 and 2008, roughly one fifth of the unemployed only register in order to establish entitlement of health care for themselves and their families. Since they do not search for work they clearly should not be counted and the stock of unemployed would be reduced by about 70,000 (figure II.6). There are plans by the Macedonian government to create health insurance for all residents being paid out of the general budget. This certainly would reduce the number of unemployed and, at the same time, would ease the burden for the local employment offices (see also section V.3 below).

The duration structure of registered unemployment reveals in my opinion the second caveat that one has to keep in mind. As table II.1 shows[9] around 50% of the unemployed supposedly an uninterrupted spell of unemployment lasting four years or more, while about 30% supposedly have been unemployed without interruption for eight years or more! Using LFS data from 2007 we see a similar picture with roughly 70% of the unemployed stating an uninterrupted unemployment spell of four years or more. It strikes me as pretty obvious that eat least part of these very long-term unemployed need to be engaged in some economic activity in order to survive. This seems to be a plausible description of what is going on since in a cross section of the 2007 workforce the percentage of those long-term unemployed receiving some form of income support never exceeds 70% (see. Table II.3 below).

Figure II.6



Source: Ministry of Labor and Social Policies of Macedonia

In other words, informal economic activities have to be seen as the main means by which many of the unemployed support themselves. This informal economic activity, which might be seasonal or temporary, should not be confused with the informal employment relationships mentioned above. This is essentially activity underground and completely outside any statistical records. Jackman (2007), using Schneider's (2004) estimate of 36% of Macedonia's grey economy, in some back-of-the-envelope calculations comes to the conclusion that about half of the unemployed are in actual fact employed. So, in September 2008 the stock of unemployment would be around 135,000 and the unemployment rate would be around 15%. Rising real wages in industry and services in this period is another indication that the "true" unemployment stock is much smaller than the one given by official register data.

[9] The numbers shown are adjusted by subtracting the number of those who only register for health insurance benefits in an equiproportionate way across the distribution.

A less serendipitous way to establish the "true" level of unemployment is to use information from the LFS 2007 on whether an unemployed person receives some kind of income support or not during the last four weeks prior to the date of interview. We infer from table II.3 that at all spell lengths the incidence of income support is high, ranging between 60 and 70 percent for men and between 41 and 55 percent for women. So, taking the male percentages we could argue that roughly between 30 and 40 percent of the unemployed might be engaged in unrecorded economic activities.

One should make clear, however, that unemployment in Macedonia is not only a measurement problem. If we abstract for the moment from measurement issues, we see that nearly half of the registered unemployed fall in the lowest educational category, i.e. have low skills and that the vast majority of the unemployed cannot find employment in the formal sector for very long periods of time. Reducing the tax wedge for the low skilled (Leibfritz, 2008) might boost the employment chances of this group somewhat, but it seems clear that at this point in time the Macedonian economy is not capable to create enough jobs at the lower end of the skill distribution to have a discernible impact on unemployment.

If we slice the unemployment data by age, we get conflicting results when we compare register and LFS data. With the registry data we find that young workers are particularly affected by unemployment while with the LFS data we see unemployment heavily concentrated among older workers. We have no immediate explanation for this discrepancy and a major research effort should be undertaken to better characterize the structure of unemployment, to ascertain the means of income of the unemployed and to investigate informal employment given its likely importance in Macedonia.

How much is the income support that is reported in Table II.3 across the various duration categories of the unemployment a factor that keeps workers in unemployment? Ideally we would like to use the panel of 2006-2007 and estimate transitions out of unemployment into employment and into inactivity having income support as one of the determining factors in the regressions.[10] Since the problems of the panel element of the LFS data have not been solved, we can only run cross section regressions for the years 2006 and 2007. We perform a simple probit regressions with the samples of all unemployed in 2006 and 2007 where we estimate the probability of being-long-term unemployment (i.e. being more than 12 months continuously unemployed) as a function of many factors including a dummy if a person received income support. This dummy is not significant in both years, which, in a cross section context, is not that surprising given that the incidence of income support for the unemployed is pretty evenly spread across the duration categories as Table II.3 makes clear.[11]

We now turn to the reform efforts of the NMS and see whether there are some lessons for Macedonia in its efforts to improve labor market performance in a major way.

[10] That is, ideally we would like to perform multinomial logit regressions with unemployment as the origin state in 2006 and with unemployment (base category), employment and inactivity as destination states in 2007.

[11] We also perform ordered probit regressions with 4 duration categories; also in these regressions the dummy variable for income support is never significant. We do not report any of the results here.

Table II.1 Distribution of registered unemployment in Macedonia by duration, age and education – monthly averages (September 2007 – September 2008)

By duration		By age		By education	
<1mo	2.0	*15-19*	2.3	*Primary or less*	48.8
1-5 mos	7.0	*20-24*	12.3	*Sec.Vocational*	20.0
6-11 mos	8.7	*25-29*	13.8	*Sec.General*	24.3
12-17 mos	7.7	*30-34*	12.7	*Higher*	1.7
18-23 mos	6.8	*35-39*	11.9	*University*	5.3
2 years	9.1	*40-44*	11.7		
3 years	7.5	*45-49*	10.8		
4 years	7.0	*50-54*	10.3		
5-7 years	14.0	*55-59*	9.0		
8 years+	30.4	*60+*	5.2		

Source: Ministry of Labor and Social Policies of Macedonia

Table II.2 Distribution of unemployment in Macedonia by duration, age and education – LFS data, 2007

By duration	Males	Females	By age	Males	Female	By education	Males	Females
<3mo	1.60	1.65	*15-25*[1]	2.17	2.54	*Primary or less*	47.32	43.21
3-6 mos[1]	2.99	3.20	*25-35*[1]	5.80	7.98	*Sec. 2-3 years*	14.55	11.89
6-12 mos[1]	4.94	4.64	*35-45*[1]	10.50	12.37	*Sec. 4 years*	27.44	35.03
12-18 mos[1]	3.63	3.68	*45-55*[1]	18.48	20.80	*Higher*	4.49	3.65
18-24 mos[1]	3.81	3.16	*55-65*[1]	24.70	28.96	*University*	6.20	6.21
24-36 mos[1]	6.69	7.06	*65 & over*	38.35	27.36			
36-48 mos[1]	7.69	8.35						
48mos & over	68.64	68.25						

Notes: [1] excluding the upper limit

Table II.3 Distribution of unemployment in Macedonia by duration and income support – LFS data, 2007

By duration	Males	Incidence of income support	Females	Incidence of income support
<3mo	1.97	70.91	1.86	41.38
3-6 mos[1]	4.54	67.72	3.97	48.39
6-12 mos[1]	5.87	60.98	8.26	50.39
12-18 mos[1]	4.29	60.00	5.25	46.34
18-24 mos[1]	3.90	62.39	6.47	43.56
24-36 mos[1]	9.12	65.88	10.24	54.37
36-48 mos[1]	10.34	65.05	11.20	44.57
48mos & over	59.98	69.23	52.75	46.36

III. Reforming the Labor Markets in the NMS: Lessons for Macedonia

III.1 Introduction

Students of the labor markets in the NMS often have opposing views on how flexible these markets have become with the onset of accession to the union. While the study by Boeri and Garibaldi (2006) states that labor markets institutions in the NMS point to relative flexibility, Rutkowski (2007) and Feldmann (2004) maintain that their labor markets have still been rigid in the early years of the new century. These contradictory assessments come about because the authors use different benchmarks for comparison. Boeri and Garibaldi compare the institutions of the NMS labor markets with those of the EU-15, while Rutkowski and Feldmann pursue the idea that the only viable benchmark should be the labor market institutions of the Anglo-Saxon countries. In my opinion this preference of the latter authors is more based on ideology than facts. As Nickell (1997) and Nickel, Nunziata and Ochel (2005) point out, the idea that the very flexible labor markets of the Anglo-Saxon countries have a persistently better performance than the labor markets of Continental Europe, a hypothesis put forth by e.g. Siebert (1997), is a myth if we take a longer-term view. In addition, labor legislation that is relevant for accession states has to be seen embedded in the EU social charter and in policies of social protection and inclusion. Consequently, it seems more plausible to compare labor market institutions of the NMS impacting on flexibility with institutions as they are prevalent in the EU-15. A sensible way to analyze the reform of labor market institutions is to divide the assessment into factors that predominantly impact on labor demand and into factors that mainly influence labor supply.

III.2 Factors related to labor demand

As far as labor demand is concerned we look at four factors: employment protection legislation, the role of unions in collective bargaining, taxes on labor and the minimum wage.

The EPL overall index developed by OECD researchers is a weighted composite index made up of three separate indices, the indices for regular contracts, for temporary contracts and for collective dismissals. The EPL indices for these three categories are shown in Table A2 in the appendix. First we discuss the overall index, which is shown in Table III.1 for the NMS and for the EU-15. For the old member states we only have observations at the end of the 1990s and for 2003. The index runs potentially from 0 to 6, where a larger number implies more strictness and thus the employment of labor more costly to employers. Inspection of the table makes it clear that employment protection has become less stringent in all NMS long before the date of accession. In addition, the unweighted average of the EPL indices for the NMS in 2003 amounts to 2.24 and is thus lower than the average of the indices in the old member states (2.4). In other words, on this measure the labor markets of the NMS are on average more flexible than the labor markets of the EU-15 even before accession.

Table III.1 Employment protection legislation (OECD methodology)
EPL - overall index

Country	*end 90s*	*2002*	*2003*	*2004*
Czech Republic	2.2	2.1	1.9	2
Estonia	2.4	2.6	2.6	2.3
Latvia	-	-	2.5	-
Lithuania	-	-	2.7	2.8
Hungary	1.8	1.7	1.7	1.6
Poland	2	2	2.1	2.2
Slovakia	2.3	2.4	2	1.7
Slovenia	3.3	3.5	2.3	2.6
EU-15*	2.5	-	2.4	-

Source: Tonin (2005) for 2004 data, OECD and Eamets and Masso (2004) for 2003, Romih and Festic (2008) for other years.
**EU-15 without Luxembourg*

This relatively good result comes about because temporary contracts are much less regulated in the NMS than in the old member states (panel A of A2). However, apart from Poland and Slovenia, temporary contracts have a much smaller incidence in the former group of countries as we will show below. The bulk of contracts are of the regular, permanent type, and such jobs are clearly more regulated as inspection of panel B in table A2 demonstrates. For example, in 2003 only Latvia, Poland and Hungary have an equally or less stringent protection legislation while the rest of the EU-8 have indices far higher than the EU-15. Finally, collective dismissal procedures are far more restrictive in the NMS (see panel C of A2). We arrive at a favorable picture regarding EPL in the NMS because the construction of the composite index foresees that the EPL index connected to regular contracts has the same weight as the EPL index connected to temporary contracts.[12]

There is, of course, a need to distinguish between the stock of existing jobs and the flow of new jobs. Since in the NMS temporary jobs are less protected than regular jobs, we would expect firms to create above all temporary jobs if EPL is a main driving factor in the job creation process. As we will see below, even by 2007 there are only a small fraction of workers engaged in temporary work in most of the EU-8 countries, amounting hardly ever to more than 5 percent of total employment for females and 10 percent for their male counterparts.

How important are trade unions in the wage bargaining process in the NMS? Conventional wisdom has it that trade unions will achieve wages for their members that are higher than competitive wages. This mark-up over competitive wages leads, *ceteris paribus*, to less employment than in purely competitive labor markets.[13] Taking the

[12] Regular contracts, temporary contracts and collective dismissals have weights of 5/12, 5/12 and 2/12 respectively.

[13] A nice exposition of the conventional neoclassical view on trade unions can be found, e.g., in Oswald (1988). The idea that the main impact of trade unions is the "destruction of jobs" in a firm, sector or the economy, is not shared by all students of trade unions. Applying Albert Hirshman's concept of "exit" and "voice" (Hirschman, 1970) to trade unions, Freeman and Medoff (1980) maintain that trade unions can give "voice" to workers' concerns about inefficiencies that they observe regarding production and organization in a firm; as a consequence the existence of trade unions might actually increase the efficiency in the labor market. In line with Williamson (1985) other researchers have pointed to the large transactions costs that arise in the

neoclassical view at face value, we investigate the relative values of union density and bargaining coverage in the NMS. Union density measures the fraction of workers in an economy who are members of a trade union, while bargaining coverage describes the fraction of workers who are covered by wage agreements negotiated by trade unions.

Table III.2
Trade union density rates

Country	1990	1995	1997	1999	2001	2002	2005/6
Czech Republic	78.7	46.3			27	25.1	22
Estonia	90.6	31.6	19.3	20	16.6	14	11
Hungary		63.4		32.8		19.9	17
Latvia						20	16
Lithuania					16	15	14
Poland		32.9		24.2	14.7	15	16
Slovakia	78.7	57.3				35.4	30
Slovenia						41	44
EU-15*	43.2	41.9	40.7	40.4	42.1	37.2	38.5

Source: 1990-2002 data are from Industrial relations in Europe (2004), 2002 data for Estonia, Lithuania and Poland are from Anspal and Vork (2007). 2005/6 data are from L. Fulton: Worker representation in Europe. Labour Research Department and ETUI-REHS: 2007.
**: Unweighted average for EU-15. Some countries are missing in various years.*

The trade union density, which was high in the NMS at the beginning of transition, has been reduced in a dramatic fashion for those countries for which we have data. Also, long before accession, density rates were far lower than the average of the EU-15 if we abstract from Slovenia. There is slight decrease after 2004 for most NMS. The main point, however, has to be that the near collapse of trade union influence in the 1990s, taking trade union density as a measure of influence, suggests that trade unions in the EU-8 have become very weak in international perspective, and that this weakness, which manifests itself long before accession, might not only be a blessing for these economies as we will argue below.

Our second measure, bargaining coverage, shows that wage agreements negotiated by employers and trade unions have a substantially lower coverage rate in most NMS than in the old member states where on average nearly four fifths of the workforce are covered by such agreements. The only exception among the NMS is Slovenia. At any rate, employers in the EU-8 are far less constrained in their wage policies than employers in the EU-15.

case of bargaining at the individual level in large firms. Trade unions can clearly reduce these transaction costs. For a balanced and lucid presentation of the role of trade unions, see Booth (1997).

Table III.3
Bargaining coverage

Country	2002	2005/6
Czech Republic	25%-30%	44%
Estonia	28%	25%
Hungary	31%	25%
Latvia	<20%	20%
Lithuania	10%-15%	10%
Poland	40%	35%
Slovakia	48%	35%
Slovenia	100%	96%
EU-15*	77%	81%

**: Unweighted average for EU-15.*
Data for Greece in 2002 and Ireland in 2005/6 are missing.

The implicit tax rates shown in table III.4 are roughly in the same ballpark as the EU-15 averages. The only discernible point one can make is that Slovakia has been able to drive down the implicit tax rate between 1995 and 2006 in a substantial fashion, while in all other countries the rate has been fairly stable throughout the period as has been the EU-15 average implicit tax rates. In addition, Boeri and Garibaldi (2006) demonstrate that the average marginal effective tax rates for the four Visegrad countries are very similar to the average rates in the old member states across the wage distribution of a representative worker whose family status is single.[14] In summary, the cost on labor clearly has not been excessive in comparison with this cost in the old member states.

Another institution that can influence the demand for labor is the minimum wage. In the literature there is a lively discussion about the employment effects of the minimum wage. Opponents of a minimum wage adhere to the conventional view that the skill segment of the workforce where minimum wages become relevant (essentially the very low skilled or the unskilled) work in competitive labor markets. In competitive labor markets the imposition of a minimum wage provides a wage floor, which results in more labor supplied than labor demanded at the imposed wage. Consequently, some jobs will be eliminated and involuntary unemployment will rise. Proponents of the minimum wage think of the labor market for the low skilled and unskilled as having some monopsonistic structures, which result potentially in an expansion of employment when the minimum wage is imposed.[15] Whatever the theoretical and empirical controversy, minimum wages in the NMS are relatively low in international perspective. In 2003, the minimum wage ranged from 30% of the average wage in Estonia to 45% in Slovenia, while in those countries of the EU-15 where statutory minimum wages exist, they ranged from 36% in Spain to 61% in France (Boeri and Garibaldi, 2006).

[14] For the Visegrad countries they cite the following tax rate averages: 47.2 at 67% of the average wage (compared with 48.1 in the old member states), 49.6 at 100% of the average wage (48.9 in the old member states) and 55.7 at 167% of the average wage (56.4 in the old member states).
[15] For the more conventional view on the employment destroying function of the minimum see e.g. Kennan (1995), for a view based on monopsony see Card and Krueger (1995) and Manning (2003).

Table III.4 The implicit tax rate on employed labor

Country	1995	1998	2001	2004	2006
Czech Republic	40.5	40.7	40.3	41.8	41.0
Estonia	39.2	39.8	37.3	36.1	33.9
Latvia	39.2	37.2	36.5	36.7	33.5
Lithuania	34.5	38.3	40.3	36.0	34.1
Hungary	42.6	42.9	41.0	37.7	39.0
Poland	36.8	35.6	33.2	32.7	34.4
Slovenia	38.9	37.7	37.5	37.5	37.6
Slovakia	38.5	38.0	37.1	34.3	30.3
EU-15*	36.1	36.8	36.5	35.9	36.2

Source: Eurostat.

Note: The implicit tax rate on employed labor is defined as the sum of all direct and indirect taxes and employees' and employers' social contributions levied on employed labor income divided by the total compensation of employees working in the economic territory increased by taxes on wage bill and payroll.

Having established that on the usual measures of labor market flexibility regarding labor demand the institutions of the NMS have evolved in such a way as to ensure at least the same flexibility as they do in the EU-15, we now briefly turn to Macedonian labor market institutions as they impact on labor demand. Table III.5 presents the assessment of Macedonian managers regarding the role of labor market institutions as a potential constraint on firm and thus employment growth. In 2005, i.e. before major amendments to labor market legislation were enacted in Macedonia, on average managers of Macedonian firms consider labor market institutions less of a constraint on firm growth than do managers in the NMS. Of course, one needs to interpret these numbers from the BEEPS survey with caution. If managers find that, for example, a savings constraint or an investment constraint at the national level[16], or corruption on a large scale, phenomena more prevalent in less developed economies, are the truly serious factors that block growth, labor market regulations will, of course, seem relatively unimportant to them. Nevertheless, keeping this caveat in mind, Macedonian managers value labor market regulations as less of a constraint on firm growth than managers in the NMS.

This result is obtained at a date before major reform efforts were made in Macedonia that had as their aim to create a more business friendly labor market legislation. Changes in labor market legislation in 2008[17] have given labor relations a relatively flexible structure, improving the ability of firms to adjust labor better to changing business needs. For example, employment protection legislation has been loosened, the maximum time before temporary employment is transformed in permanent employment has been increased to 5 years. At the same time work organization has become much more flexible, allowing firms to assign employees to other jobs without major costs to them, as well as increasing the amount of night work and work during holidays. Also, the cost of severance pay has been lowered as has been the cost of labor in general. An example of lower labor cost in general is paid annual leave which is now at least up to 20 days, while before it had to be between 21 and 26 days. Taking advantage of new technology, firms can now register their new employees with the Employment Service Agency electronically, which in turns registers these new employees electronically with the pension and health insurance funds. Before this change in law, a representative of the firm had to physically register new employees with the Employment Service

[16] Rodrik and Subramanian (2008) define a savings constrained economy, when domestic savings are limited while there is an abundance of investment projects that are profitable in that economy. An investment constrained economy means that domestic savings are available but that profitable investment opportunities are limited in the country.

[17] The major formulation of new labor market legislation in Macedonia occurred in 2005 ("Decree on the promulgation of the Labour Relations Law" of 22nd July 2005). Two amending laws were passed by the Assembly in 2008 (Official Gazette 106 -2008 and 161 – 2008).

Agency and with the mentioned social funds. Clearly, with these new provisions transaction costs have been reduced for Macedonian firms.

Labor legislation in Macedonia does provide for the protection of workers in many ways. However, some students of the Macedonian economy moot that much of this protection is only on paper and hardly ever enforced. There are mainly two reasons for this. First, the Labor Inspectorate has been understaffed and it was thus difficult to detect irregularities by employers. Second, as we have seen in the introduction, the job creation capacity of the Macedonian economy is very limited. Workers will try to hold on to their jobs and will be reluctant to make their employers face up to their obligations. This lack of enforceability of labor market institutions might be one reason why Macedonian managers do not think of labor regulations as a major constraint.

Table III.5: Labour regulations as a constraint of firm growth

	1999	2002	2005
Macedonia	**1.92**	**1.68**	**1.85**
Czech Republic	2.28	1.84	2.48
Estonia	1.72	1.80	2.46
Hungary	1.92	1.82	2.01
Latvia	2.00	1.85	1.75
Lithuania	2.38	1.86	2.13
Poland	2.35	2.58	2.35
Slovakia	1.80	1.90	1.57
Slovenia	2.4	1.69	1.89
EU-8	**2.11**	**1.92**	**2.08**
Bulgaria	2	1.65	1.66
Romania	1.86	1.85	2.31

Source: Business Environment and Economic Performance Surveys, 1999, 2002, 2005, WB and EBRD.

Notes: The table reports country averages of the answers given by firm managers to the question: "Can you tell me how problematic are these different factors for the operation and growth of your Business?" In the table, we report the answers related to labor market institutions, where possible answers are:

1 = No obstacle; 2 = Minor obstacle; 3 = Moderate obstacle; 4 = Major obstacle.

III.3 Factors influencing labor supply

As was discussed in section II, employment rates are substantially lower for certain age and education groups in the NMS compared to the EU-15, caused by labor market withdrawal of these groups during the transition cycle. At the same time we also observe a higher incidence of long-term unemployment in the NMS. To better understand why employment levels are so low for the young, but also older workers and for workers with little education and why many of the unemployed have difficulties to flow out of that state, we look at three factors that might strongly influence labor supply: unemployment benefits, non-

employment benefits like early retirement schemes and disability pensions, as well as the evolution of the wage structure by sector and of wage inequality from early to late transition.

In most NMS the unemployment benefit system has undergone dramatic changes over the 1990's. With rising unemployment, these changes were often dictated by budget considerations. However, as policy makers became aware of the disincentive effects of a too generous unemployment benefit system, changes in legislation also reflected attempts to increase the willingness of the unemployed to increase search and take on jobs.

Reform efforts by the Polish government to streamline unemployment benefit legislation are a case in point. At the beginning of transition, Polish unemployment benefits were earnings related, open ended and without a previous work requirement, causing a flooding of offices of the Public Employment Services by applicants for benefits. Within a year, unemployment insurance benefits were limited to one year and a previous work requirement was imposed. By December 1994 earnings related benefits were eliminated and a flat rate amounting to 36% of the average wage was introduced.[18] Thus within a few years, major aspects of the unemployment benefit system were overhauled by the Polish government, and by the mid-nineties like Poland most NMS had reformed their unemployment benefit systems with an eye on both reducing budgetary pressures as well as increasing the search effectiveness of the unemployed.

How generous are unemployment benefits in comparison with EU-15 countries? Table III.6 presents the replacement rates during the 1st month of unemployment and during the 60th month.[19] The Baltic states, which are not very generous even as far as the support of the very short-term unemployed is concerned, provide no support in the 60th month as does Slovenia. The EU-15 average has the second highest replacement rate for both durations.[20] Hence, the NMS are definitely not more generous in their income support than are the old members of the union.

Table III.6 The amount of unemployment benefits in 2003 (% of last wage)

	1st month	60th month
Czech Republic	50	31
Estonia	50	0
Hungary	64	24
Latvia	50	0
Lithuania	25	0
Poland	40	30
SlovakRepublic	60	42
Slovenia	63	0
EU-15	63	37

[18] Those without previous employment were entitled to benefits close to the minimum wage!

[19] Strictly speaking in many of the NMS, unemployed workers do not have unemployment benefits beyond one year. The number for Poland, e.g., in the 3rd column comes about because of some social benefits paid-out to the long-term unemployed. These benefits are not paid out of unemployment insurance or out of the "Labor Fund", but come out of social budgets of municipalities. In Poland at least, in many cases long-term unemployed do not receive any cash benefits at all, so the indicated replacement rate of 30% paints a far too generous picture.

[20] Behind these averages are hidden large variations, though. In Belgium, e.g., replacement rates remain high for any duration of unemployment while in Italy, on the other hand, only a small minority of industrial workers receives benefits at all.

Source: Romih & Festic (2008)

We presented the extremely low activity and employment rates of older and low skilled workers in many of the NMS in the previous section. One reason for these low rates was the relatively poor ability of older and low skilled workers to adapt to the new economic environment. Most governments in the region developed income support schemes for these older workers as a way to cushion the social effects of transition and thus contribute to social stability. In my opinion, one needs to keep this social aspect in mind when discussing the disincentive effects on labor supply of the two most frequently used tools of income support for older workers who wished to withdraw from the labor market while still in working age, early retirement schemes and disability pensions.

A glaring case is Poland, where as we have seen, activity and employment rates of older and less skilled workers have been low from the early nineties until 2007. Polish policy makers strongly contributed to the withdrawal of older workers by introducing an array of measures that spurred these workers on to retire long before the statutory retirement age (59 for women and 64 for men). Throughout the nineties invalidity and disability pensions were the main income support measure for these workers (MGiP, 2005). Comparisons with OECD countries show that while the fraction of workers with impaired ability to work[21] was roughly the same in Poland and other OECD countries in the 1990's, Poland, in 1999, had 182 persons in 1000 who received an invalidity pension in the age bracket 45-54, while the average in the OECD was 73 persons in 1000 (MGiP, 2005).

Changes in pension legislation towards the end of the 1990's reduced the inflow of new disability pension claimants. With an economy deteriorating in 1999, this reduced inflow was completely compensated by an increased inflow of early retirees. The majority of these early retirees have been unemployed workers who were still in working age. Thus increasing expenditures on the early retirement of unemployed workers was a consciously chosen policy to "deactivate" a substantial part of the unemployed. For example, in the years 2004-2004, 40% of unemployed between the ages of 55-64 were given early retirement packages, while for the age groups 45-54 and 15-44 the percentages were 19% and 11% respectively. Since early retirement schemes were considered passive labor market policy measures, these pensions were paid out of the Labor Fund (LF). While in 1997 6.4% of LF expenditures were destined for early retirement pensions, in 1999 this share was already 20.3%, reaching 47.2% in 2004. Thus, the increase in expenditures on early retirement pensions did not only push older Polish workers out of the labor force, it also crowded out expenditures on ALMP.

In summary, by providing strong income support for older workers intent on withdrawing from the labor market the Polish government clearly encouraged such behavior as did governments in other NMS. In times of a sustained up-turn, some of these workers might have been in demand. A too generous early retirement policy might, therefore, in some sense "overshoot" the target of downsizing the workforce and be very inefficient in the medium run. On the other hand, as already stated, from a political and social point of view this large downsizing of the workforce in times of a deep transition recession might be the only way to ensure enough social cohesion.

While we do not discuss educational reforms in the NMS, we need to look at how educational attainment impacts on wages as a final factor affecting labor supply. Under central planning returns to education were low or non-existent since relative wages were politically motivated. Do returns to education begin to reflect relative scarcities as they do in mature capitalist economies? If returns do reflect relative scarcities, then the labor market provides the right signals to workers and will encourage them to demand more education, which in turn is vital for labor productivity growth.

[21] Having impaired ability to work does not mean, of course, that persons with such an affliction are completely unable to work.

Comparing the evolution of wages by sector in Hungary and Macedonia, is one way to establish how far the Macedonian labor market has come in terms of wage differentiation. Both countries have a very similar relative wage structure as workers in the primary sector and in manufacturing have relatively low wages while workers in the energy sector and in financial intermediation have wages that are far higher than the national average (see tables A3 and A4 in the appendix).

Figure III.1 shows the distribution of log hourly wages for males and females in Macedonia in 2007. The lower wages for a large share of women are clearly visible in the figure. That wages in Macedonia are relatively compressed can be inferred for a comparison of tables III.7 and III.8 that present low pay incidence and various decile ratios. It is striking that relative to the two transition countries in table III.8, Hungary and Poland, and relative to the United States the 9 to 1 ratio is dramatically lower in Macedonia pointing at a far more compressed wage distribution. Only France, which has one of the most rigid labor markets shows the same wage compression. We can also see that Macedonian wages are particularly compressed for women.

Figure III.1 Kernel density estimates of male and female wage distributions, Macedonia 2007

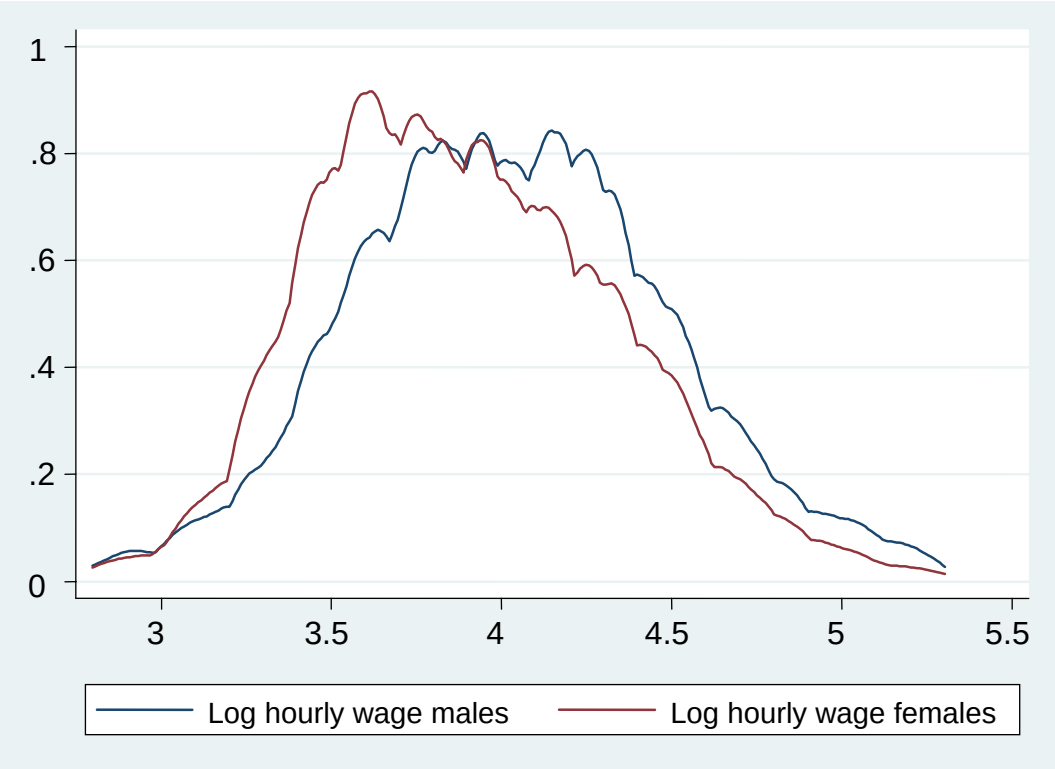


Table III.7 Dispersion of hourly wages: Macedonia 2006-2007

	All		Males		Females	
	2006	2007	2006	2007	2006	2007
Low Pay Incidence*	20.40	18.49	15.88	13.51	26.88	25.01
Decile 5/Decile 1	1.75	1.80	1.79	1.95	1.64	1.60
Decile 9/Decile 1	3.31	3.40	3.21	3.50	3.00	3.00
Decile 9/Decile 5	1.89	1.89	1.80	1.80	1.83	1.88

Source: Own calculations based on Macedonian LFS data.
**Less than two-thirds of median earnings of all workers.*

In table III.8 we can also see the evolution of the distribution of wages for Poland and Hungary and compare this evolution to the wage structures in France and the United States. For Hungary, we see a steep increase in the ratio of the 9th to the 1st decile, and a mild increase in the ratio of the median to the 1st decile between 1992 and 2006. It is striking that over the same period the median worker hardly gains anything relative to the worker in the first decile. In other words, the large rise in inequality is entirely caused by gains in the upper part of the distribution, i.e. because highly skilled workers are compensated for the acquisition of skills. The patterns for Poland are very similar. What is also striking is the rise in the incidence of low pay in both countries to roughly one quarter of all employed by the year 2004. These two transition countries thus reach the same low pay incidence as exhibit the United States, one of the OECD countries with the highest fraction of low pay workers. The United States also has one of the most flexible labor markets in the developed world with a relatively unequal distribution of earnings during the 1990's and in the new century. It is, therefore, striking that by 2006 Hungary has a very similar ratio of the 9th to the 1st decile to that of the United States. At the time of accession, Poland has a slightly less unequal distribution than the United States. Strikingly, France shows the most equal distribution of

earnings among the four countries with far lower ratios of the median to the 1st decile and of the 9th to the 1st decile. Inspection of A6 in the appendix leads us to conclude that the earnings distributions for males are somewhat more unequal than the distributions for females and low pay incidence hits women more than men, in particularly in the United States.

Table III.8 Evolution of dispersion of wages: France, Hungary, Poland and United States

Time		*1992*	*1994*	*1996*	*1998*	*2000*	*2002*	*2004*	*2006*
Country									
France	Low Pay Incidence*	..	..	..	..	..	..	..	..
	Decile 5/Decile 1	1,6	1,6	1,6	1,6	1,5	1,5	1,5	..
	Decile 9/Decile 1	3,2	3,1	3,1	3,1	3,0	3,0	3,0	..
	Decile 9/Decile 5	2,0	1,9	1,9	1,9	2,0	2,0	2,0	..
Hungary	Low Pay Incidence*	19,4	20,8	21,0	22,0	23,4	21,7	23,0	23,1
	Decile 5/Decile 1	1,8	1,9	1,9	1,9	2,1	1,8	2,0	1,9
	Decile 9/Decile 1	3,6	3,9	4,0	4,2	4,7	4,1	4,6	4,6
	Decile 9/Decile 5	2,0	2,1	2,1	2,2	2,3	2,3	2,4	2,3
Poland	Low Pay Incidence*	14,3	17,6	18,4	18,8	..	22,1	23,5	..
	Decile 5/Decile 1	1,6	1,7	1,8	1,8	..	2,0	2,0	..
	Decile 9/Decile 1	2,9	3,4	3,5	3,5	..	4,1	4,2	..
	Decile 9/Decile 5	1,8	2,0	2,0	2,0	..	2,1	2,2	..
United States	Low Pay Incidence*	23,2	25,1	25,1	24,5	24,7	23,5	23,9	24,2
	Decile 5/Decile 1	2,1	2,1	2,1	2,0	2,1	2,1	2,1	2,1
	Decile 9/Decile 1	4,4	4,5	4,6	4,5	4,5	4,7	4,8	4,8
	Decile 9/Decile 5	2,1	2,2	2,2	2,2	2,2	2,3	2,3	2,3

*Source: OECD. *Less than two-thirds of median earnings of all workers.*

The discussion of the relative wage structure by sector and of the evolution of the earnings distribution allows us to draw the strong conclusion that at the time of accession the NMS had wages that were correlated with relative scarcity of labor skills and labor productivity. At least regarding the sectoral distribution of wages, Macedonia does not seem far behind the NMS. However, when regarding the size distribution of wages, Macedonia has a wage distribution as compressed as the wage distributions of Hungary and Poland at the beginning of the transition. Nevertheless, there seems to be at least some small sign that wages in Macedonia are correlated with relative scarcity of labor skills and labor productivity.[22]

Another encouraging sign that the Macedonian labor market responds to relative scarcity and productivity can be found when comparing returns to education in Macedonia and Poland. Tables A8 and A10 show the distributions of the workforces in the two countries by highest educational attainment, with a somewhat more favorable distribution for the Polish workforce. Table III.9 is based on the results of Mincer-type regressions for the two countries with, different specifications of the estimated equations for the year 2006. The regressions for Macedonia can be found in Angel-Urdinola and Macias (2008) while the results for Poland are derived from table A.9 in the appendix, where the covariates of a fully specified Mincer-type equation are shown. For reasons not entirely obvious to me, Angel-Urdinola and Macias do not control for job characteristics (e.g. tenure, permanency of position, firm size), which clearly have an impact on wages in the Polish regressions. If these variables are correlated with education, the estimated coefficients on the

[22] Not having had yet access to a long panel of the Macedonian LFS, it was not possible to show the evolution of the Macedonian earnings distribution as we do for Hungary and Poland here.

education variables are biased. So, the comparisons are rather illustrative and need to be taken with a grain of salt as far as the year 2006 is concerned.

A striking fact consists in the much higher returns in the non-private sector in Macedonia, pointing to a private sector that is not yet developed / restructured enough to require high skilled labor. There is no evidence in Poland on such a wide gap and we, therefore, have performed regressions by gender. The implied rates of return demonstrate that in the Polish labor market university education pays more for women than for men, an outcome also observed in other NMS. For education below university, on the other hand, the returns are slightly higher for men.

In the Macedonian case, gender is interacted with education to see whether there is a difference in returns to education between men and women.[23] In the comparison between Poland and Macedonia, let us concentrate on university education since the educational categories below university are not readily comparable and also do not show wide divergences. The coefficients on university seem to be close for the two countries when we look at the whole samples. However, the return in the column "all" is in the Polish case for both men and women, but in the Macedonian panel this column relates the returns for females only since education is interacted with a male dummy in the underlying regressions. So, the entry for university in the second column of the Macedonian panel has to be compared with the entry of the females column in the Polish panel. Hence, women have in Poland returns to university education that are roughly 19 percentage points higher than women in Macedonia. The implied educational return is 41.5% for Macedonian men with University education, which is nearly identical to the return for Polish university male graduates.

In the panel for the year 2007 we report coefficients on educational attainment that are gotten by having a better specification than the one used by Angel-Urdinola and Macias. Table A7 in the appendix shows the full specifications that we have used. Using various sample sizes we have tried to control not only for age but also for tenure, permanent job position and ownership. We perform the Mincer regressions for both genders taken together and separately. Thus our results are directly comparable to the results for Poland. The results confirm what we have previously said: education does pay in the Macedonian labor market since workers with more than primary education have substantial wage premia. Investing in a university education provides an especially large return, with premia of 53 and 67 percent for men and women respectively.

Overall, though, even on the basis of the numbers presented by Angel-Urdinola and Macias, and certainly on the basis of our results for the year 2007, in clear contrast to the point made by Angel-Urdinola and Macias, the Macedonian labor market does reward investment in university education in the same satisfactory fashion as the labor market does in leading transition countries.[24]

[23] The returns based on the coefficients of these interaction terms are not shown in table III.7, as some of the results seem inconsistent with each other.

[24] They state: "[…] these estimates [of returns to education] are low when compared with […] other transition countries, including […] Hungary and Poland." At least for Poland, our results for 2007 cast serious doubts on the veracity of their statement.

Table III.9 Returns to education in Macedonia and Poland

Macedonia 2006	**All**	**Private**	**Non-private**
Secondary 2-3 years	0.081	0.026	0.247
Secondary 4 years	0.150	0.081	0.397
Higher	0.284	0.220	0.534
University	0.548	0.264	0.986
Macedonia 2007	**All**	**Males**	**Females**
Secondary 2-3 years	0.079	0.046	0.128
Secondary 4 years	0.194	0.158	0.236
Higher	0.356	0.301	0.407
University	0.602	0.534	0.673
Poland 2004	**All**	**Males**	**Females**
Basic Vocational	0.059	0.051	0.052
Secondary Vocational	0.175	0.176	0.164
Secondary general & Post-secondary	0.135	0.145	0.114
University	0.623	0.413	0.726

Sources: for Macedonia 2006, Angel-Urdinola and Macias (2008);for Macedonia 2007 and Poland, own estimations based on Macedonian and Polish LFS.
Note: all shown coefficients are significant at the 5% level.

III.4 Classic forms of flexible employment

As a last important issue related to labor market flexibility we need to look at the "classic" forms of flexible employment relationships like temporary employment, part-time and self-employment. As the EU pursues a strategy of "flexicurity",[25] European policy makers consider a high incidence of these forms of employment as desirable. They promote the argument that firms gain flexibility with these employment relationships and thus are able to hire more workers than in their absence. There exists, however, also strong opposition against this form of promoting flexibility in the labor markets of the NMS. Opponents point to labor market segmentation, with a growing minority of workers being permanently excluded from secure and well paid jobs (see, e.g., Vaughan-Whitehead, 2004).

Figure III.2 shows very clearly that apart from Poland (and to a lesser degree Slovenia) the new member states have a far lower incidence of temporary employment than the EU-15. It is also noteworthy that in the boom and post-accession year of 2007, temporary employment falls in the Baltic states. This trend can be explained by either outward migration or by increased hires on permanent contracts. In Poland, we see an opposite movement since the incidence rises even further. Students of the Polish labor market find that this rise is linked to the substitution of employment contracts with "civil" contracts[26], which are of limited duration and don't require the payment of social security contributions by the employer (Socha and Sztanderska, 2007). So, one could argue that in the Polish case this spectacular rise, while generating more flexibility in the labor market, is not in the spirit of European policy makers, but rather a ploy of evading the payment of social security contributions by employers.

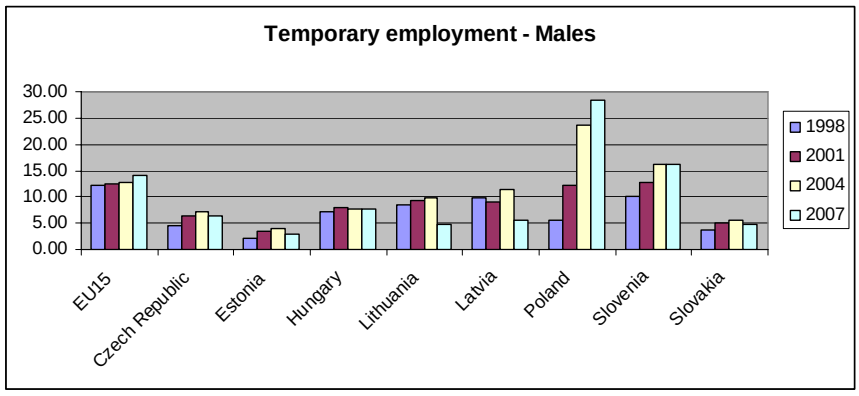
[25] For a discussion of the strategy of "flexicurity", i.e. combining flexible labor markets with social protection for displaced workers, and how this strategy can be applied to the NMS, see Cazes and Nesperova (2007).
[26] With these contracts workers, even when working inside firms, become own-account sub-contractors.

The incidence of self-employment is relatively low only in Estonia and Latvia, in other NMS the figures are similar to the EU-15 as both panels in figure A5 show. As far as part-time employment is concerned, an employment form very much promoted by European policy makers, the situation is very different. Four out of eight NMS have a very low incidence of part-time employment as far as male workers are concerned. Differences to the EU-15 are, however, particularly dramatic for women. In the old member states, roughly one third of female workers have a part-time job, while in all NMS the incidence hardly ever exceeds 10% (see panel B of table A6). There are essentially three reasons for this. First, according to Cazes and Nesporova (2007) firms find it too costly to hire part-time workers because of relatively high labor taxation and fixed labor costs. Second, the decline in fertility in the NMS reduces the necessity to combine work with child rearing. Third, households depend on the earnings of two full-time jobs to make ends meet. The two factors related to labor supply are probably more relevant since labor taxation does not really differ that much between the NMS and the EU-15, as we reasoned above.

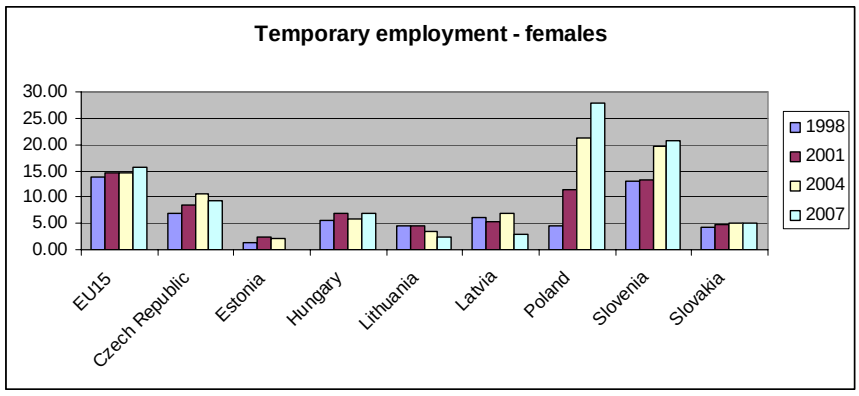
All in all, the NMS lag far behind the old member states when it comes to temporary employment of both genders and part-time employment of females. The Polish labor market is a clear outlier as far as temporary jobs are concerned.

Figure III.2 Temporary employment in the NMS and in EU-15

Panel A



Panel B



Source: Eurostat.

For Macedonia, we calculate the shares of part-time and temporary employment for the years 2006 and 2007. We do this for all employees and for employees split by sector, gender, age and tenure. Since we find particularly large shares of these employment types in agriculture, we also present data excluding agriculture where appropriate. We also report shares for the subset of those workers who declare wages.

Even in comparison with the NMS, Macedonia has a very low incidence of part-time employment when we analyze total employment. This is especially true when we exclude employment in agriculture (Table III.10). Also, a large part of the part-time employed who are in agriculture do not declare a wage. In the end, those part-time workers declaring a wage amount to just a few percentage points. The incidence of part-time for females is only slightly higher as Table A11 in the appendix shows. Thus, irrespective of gender, the share of part-time employment is miniscule in international perspective and far below the level advocated by EU policy makers.

Table III.10 Shares of Part-Time Workers and Workers in Temporary Employment, in %, – Macedonia

Year	2006	2007
A		
Part-Time Workers	7.02 (3.12)	7.40 (3.78)
Temporary Workers	31.87 (14.92)	12.45 (12.14)
B		
Part-Time Workers	3.26 (2.33)	4.00 (2.57)
Temporary Workers	17.39 (12.22)	11.67 (11.40)

Source: Macedonian LFS 2006 and 2007.
Note: A: all workers; B: workers declaring wages. In brackets: excluding agriculture.

Temporary employment has a very high share in 2006; this is, however, entirely due to an excessive share in agriculture since in this year nearly 90% of those employed in agriculture have a temporary job (Table A12). In 2007 this share falls to around one fifth. As Table III.11 highlights, much of the part-time and temporary employment in agriculture in 2006 is concentrated on the young and the older workers, while the core labor force is less affected. We can moot that this bulge of temporary employment in 2006 is linked to low productivity jobs in agriculture that are often also not paid. Angel-Urdinola and Macias (2008) make a similar point when stressing that the rise in employment in 2006 is only superficially beneficial as it reflects the growth of low productivity (and, as we see in Tables III.11 and A12, predominantly temporary) jobs in agriculture. At any rate, temporary employment is not beneficial per se, but is only so if the jobs are in value creating sectors. In 2007 we see part-time employment falling especially on the young and the older workers, but temporary employment is now inversely related to age, which strikes me as a more normal age pattern. Whatever the age group, part-time employment is very low in international perspective, while temporary work reaches high levels among the young even if we exclude agriculture. So, many workers who enter the labor market for the first time get temporary jobs where they receive substantially lower wages than their

counterparts who have permanent jobs.[27] In one sense, this large share of temporary employment for the young might be taken as an encouraging sign, since firms seem to find it profitable to hire the young as temporary workers, something many firms find more difficult in the NMS.

We can also look at new jobs and see whether they differ in their share of part-time and temporary employment in comparison with "old" jobs. In Table III.12 we have divided employment by tenure length; employment with tenure of less than 1 year we take as employment in a new job, while workers with tenure above 5 years are considered to be in old jobs. The incidence of part-time employment, while still low, does show an inverse relationship with tenure. Particularly encouraging seems, however, temporary employment as about a third of those with low tenure have temporary jobs. It is also noteworthy that this high incidence is not driven by agriculture. In actual fact, 32% of low tenure jobs outside agriculture are of a temporary nature. Whether this incidence is too high in the sense that it reflects too many poorly paid jobs that provide little or no protection to workers is hard to say without a more detailed analysis. It is clear, though, that the Macedonian economy in 2006 and 2007 seems able to create a mix of permanent and temporary new jobs that is in line with the idea of a relatively flexible labor market.

Table III.11 Shares of Part-Time Workers and Workers in Temporary Employment by age group, in %, – Macedonia

Year	2006			2007		
Age	15-24	25-50	50+	15-24	25-50	50+
A						
Part-Time Workers	13.59 (5.40)	5.51 (2.84)	9.27 (3.40)	13.65 (7.18)	6.14 (3.45)	8.82 (3.70)
Temporary Workers	63.81 (43.34)	27.25 (14.19)	34.42 (7.88)	35.87 (35.35)	12.10 (11.68)	5.16 (4.95)
B						
Part-Time Workers	3.22 (2.68)	2.78 (2.19)	4.93 (2.76)	3.69 (2.92)	3.89 (2.61)	4.46 (2.30)
Temporary Workers	37.30 (35.62)	15.87 (12.08)	17.33 (5.63)	33.59 (32.94)	11.36 (11.02)	4.83 (4.58)

Source: Macedonian LFS 2006 and 2007.
Note: A: all workers; B: workers declaring wages. In brackets: excluding agriculture.

[27] The Mincer equations in table A7 show in the first panel that, ceteris paribus, male workers in permanent jobs get a wage premium of 9% on overage, while for female workers this premium is 5%.

Table III.12 Shares of Part-Time Workers and Workers in Temporary Employment by tenure, in %, – Macedonia

Year	2006			2007		
Tenure	1 year or less	2-5 years	>5 years	1 year or less	2-5 years	>5 years
A						
Part-Time Workers	8.45 (4.83)	6.90 (2.75)	6.62 (2.67)	9.65 (6.49)	8.13 (4.77)	6.45 (2.35)
Temporary Workers	45.31 (35.75)	29.87 (18.51)	28.41 (6.10)	35.39 (34.14)	16.58 (16.29)	2.55 (2.53)
B						
Part-Time Workers	3.97 (3.26)	2.63 (1.79)	3.31 (2.27)	5.70 (4.50)	4.30 (3.18)	3.34 (1.64)
Temporary Workers	35.25 (33.35)	18.47 (16.14)	12.18 (4.55)	33.55 (32.45)	16.34 (16.10)	2.35 (2.32)

Source: Macedonian LFS 2006 and 2007.
Note: A: all workers; B: workers declaring wages. In brackets: excluding agriculture.

III.5 From excess supply of labor to skills shortages[28]

The provided evidence on labor market states and the evolution of labor market institutions can now be brought together to discuss how much accession affected the labor market in NMS. The sharp fall in short-term unemployment and the rise in employment rates after 2004 seem to say that accession was a relevant factor in the improving performance. The large fall in unemployment rates of especially younger workers was predominantly caused by outward migration, but this factor cannot explain why employment rates increased substantially. Rutkowski (2007) puts forth the hypothesis that a sharp increase in labor demand was the main driving force of job growth in the region, which started after 2004. So what is behind the rise in labor demand in the NMS? Rutkowski points to accession and a booming world economy. Because of this simultaneous upturn in the world economy, it is not possible to establish a causal effect of accession on the improved labor market performance in the NMS.[29]

The issue of the causal effect of accession is also confounded by the fact that before 2004 we observe large output growth that is not accompanied by any substantial job gains (so-called "jobless growth"), while after 2004 output and job growth go hand in hand. Based on Rutkowski (2007) and Boeri and Garibaldi (2006) we can tell the following story

[28] At the time of writing (February 2009) the title of this section should really be "From excess supply of labor to skill shortages **and back**", since output growth has turned negative and labor demand has contracted and unemployment sharply risen as a consequence of the financial crisis in most NMS. With the accession of Macedonia being a medium-term project, we hope, of course, that the scenario of a booming world economy, which underlies the expansion of labor demand and the resulting skills shortages in the years 2005 to 2007 in the NMS, is in the medium run realistic.

[29] In my opinion it is no accident that there are no seminal papers about the direct effect of accession on labor market performance in the NMS. Either there are no direct effects (or they are very small and not detectable in the data) or, even if there were large effects, it impossible to establish causality since in the years following accession the world economy is booming.

to explain this divergence in the employment effects of output growth. In early transition firms were not able to eliminate hidden unemployment completely, in actual fact they were increasing labor hoarding until about the mid-nineties. In the second half of the nineties and during the first years of the new century, on the other hand, firms started to eliminate labor hoarding, restructure their production processes in a way that made them competitive in world markets. As we have seen above, EPL for regular contracts and mass layoffs has remained more restrictive in NMS than in the EU-15. These restrictive regulations forced firms to eliminate labor hoarding in times of downturns once these firms were set on a restructuring path. Boeri and Garibaldi (2006) provide rather clear cut evidence for this story by regressing employment growth on GDP growth during expansions, GDP growth during contractions and some control variables. For the period 1996 to 2002 the authors find a significant positive coefficient on the GDP growth during contractions while the elasticity of employment to GDP during expansions is not statistically different from zero. In other words, after 1996 firms shed labor while they are reluctant to hire in this period.

Once firms had eliminated all hoarded labor they started the real restructuring process of their production and thus became competitive in world markets. This then allowed them to increase employment. The lesson for Macedonia strikes me as very clear. The restructuring process was long and tortuous in all NMS. After an increase in labor hoarding, it took firms nearly a decade to eliminate hoarded labor and to get rid of any remnants of central planning. While the labor market institutions became more flexible over the nineties there were still more rigidities than in the old member states, which also made the restructuring process longer and more difficult. At the end of this process, many sectors of the economies of the NMS had become competitive enough to benefit from accession. But the groundwork for these benefits clearly were laid in the decade before accession.

Rising labor demand after 2004 has caused skills shortages in virtually all NMS, as the rising number of vacancies and wage growth exceeding labor productivity growth suggest (Rutkowski, 2007).[30] Seen from the supply side, skills shortages are caused by outward migration of skilled workers after accession, but above all by the low participation rates of youth and older workers and by a lack of skills among the unemployed (especially among the long-term unemployed). Reform efforts to increase skilled labor supply among the domestic working age population in the NMS can, therefore, entail three policy packages.

First, raise youth participation in the labor market to EU-15 levels by making part-time and temporary employment more attractive for employers. Second and this is suggested by Rutkowski (2007), "reactivate" those older workers who have through bridging schemes been "de-activated" in the years 1990-2003. This recommendation strikes me as not terribly realistic since the early retirees are not likely to show any drive to be re-integrated into the labor market, especially if this requires a major re-training on their part.[31] Third, provide further training and re-training for the unemployed. This policy becomes financially feasible with the structural funds available for member states which are discussed in the next section. However, as we will argue in the section on active labor market policies (ALMP) – section V – in an environment of high unemployment one has to

[30] Rutkowski in his paper also cites data from the BEEPS survey as an indication of rising skill shortages. However, Table A13 in the appendix does not show skills shortages as a sharply tightening constraint impeding the growth of firms. This lack of direct evidence is given in both the EU8+2 and in Macedonia.
[31] Rutkowski also proposes allowing inward migration of skilled foreign workers. This proposal might face political difficulties especially in countries that have very high unemployment levels like Macedonia.

quite carefully target these training measures if they are to be effective. For example, targeting the least skills workers with the longest spells of unemployment might be very counterproductive.

From the experience of the NMS we can draw the lesson that the "deactivation" of older workers or workers who are unwilling to adjust to the new labor market conditions generates a major trade-off for policy makers. On the one hand, "deactivation" is required in times of large excess supply of labor to avoid social turmoil. On the other hand, "deactivation" is difficult to reverse in times of excess labor demand. To find the right level of "deactivated" workers and avoid overshooting this level is a difficult task that has to be taken on by policy makers.

Another important policy measure that combats skills shortages is, of course, the reform of vocational education. This reform has to be based on information provided by firms on their skills requirement. Many NMS were very slow in reforming vocational education. It is certainly encouraging that the Macedonian government has started surveying Macedonian firms with this reform in mind. In this context it is, however, essential to undertake surveys of firms that are truly representative at the national level.

IV. Structural Funds for Employment Creation by the European Union

The revised Lisbon Strategy has identified Employment as an absolute priority for the EU. This was reflected in the programming of three of the main Community financial instruments for the period 2007–2013[32]:

- the Community Programme for Employment and Social Solidarity (PROGRESS);
- the European Social Fund (ESF);
- the European Regional Development Fund (ERDF).

The EU's Structural Funds are set up to reduce differences in prosperity and living standards across EU Member States and regions, and therefore promoting economic and social cohesion. We summarize here the information available on this in a concise fashion, pointing to those programs, from which Macedonia can and will be able to benefit as a candidate and as member.

IV.1 PROGRESS

The aim of the PROGRESS programme is to provide financial support for the implementation of the European Union's objectives in the field of employment and social affairs. It finances analysis, mutual learning, awareness-raising and dissemination activities, as well as assistance for the main players over the period 2007-2013. PROGRESS has a global budget of € 743,25 millions. PROGRESS activities are designed to inform policy analysis and development.

Through PROGRESS, the Commission:

- delivers analysis and advice on relevant issues in employment and social affairs;
- looks at and checks how far Member States have implemented EU legislation and policies;
- engages with stakeholders and society at large to make sure that their concerns and expectations are voiced and heard;
- promotes policy transfer, learning and support on EU objectives and priorities at EU and Member State level.

This programme is open to the 27 EU Member States, EU candidate and EFTA/EEA countries. It targets Member States, local and regional authorities, public employment services and national statistics offices. Specialised bodies, universities and research institutes, as well as the social partners and non-governmental organisations can participate.

The programme is divided into five sections corresponding to five main fields of activity:

- employment;
- social protection and inclusion;
- working conditions;
- diversity and combating discrimination;
- equality between women and men[33].

[32] Other structural funds (not directly dedicated to employment creation) are: the European Agricultural Guidance and Guarantee Fund (EAGGF); the Financial Instrument for Fisheries Guidance (FIFG). The Cohesion Fund (CF). Though not a structural fund, it is considered another important pillar of EU structural policy.

The objective of the employment section is to support implementation of the European Employment Strategy[34] by:

- improving understanding of the employment situation, in particular through analyses and studies and the development of statistics and indicators;
- monitoring and evaluating the implementation of the European Employment Guidelines and Recommendations and analysing the interaction between the EES and other policy areas;
- organising exchanges on policies and processes and promoting mutual learning in the context of the EES;
- reinforcing awareness-raising, disseminating information and promoting debate, in particular among regional and local players and the social partners.

Actions may be funded by:

- a service contract following a call for tenders;
- a partial subsidy following a call for proposals. In this case, the EU co-financing may not, as a general rule, exceed 80% of the total expenditure incurred by the recipient.

PROGRESS concentrates on the outcomes of public expenditures so as to make clear the benefits of every Euro spent (so-called results-focused approach). Monitoring should help determine to which extent the programme is on the right track and in case adjust its course of action so that it can deliver its expected outcomes. The Commission monitors the programme's results through annual activity reports to the European Parliament and the PROGRESS committee. These reports should provide a clear and accurate account of the extent to which the activities undertaken have achieved the programme's outcomes.

REFERENCES

Act	Entry into force and expiry date	Deadline for transposition in the Member States	Official Journal
Decision 1672/2006/EC	01.01.2007 - 31.12.2013	-	OJ L315 of 15.11.2006

IV.2 ESF

[33] ACT, Decision No 1672/2006/EC of the European Parliament and of the Council of 24 October 2006 establishing a Community Programme for Employment and Social Solidarity -- PROGRESS [Official Journal L 315 of 15.11.2006].

[34] Since its launch in 1997, the EES has played a central role in coordinating the EU's policies in order to create more and better jobs. The role of the EES has been underlined by the European Council at several occasions and has become an essential tool to respond to one of the EU citizen's main preoccupations. In line with the Lisbon strategy, the European employment guidelines established by the Council in 2003 have set three overarching objectives: full employment; quality and productivity at work and strengthened social cohesion and inclusion. They included ten specific guidelines and guidance on improving governance of employment policies.

The ESF is devoted to promoting employment in the EU. It is a key element of the EU's strategy for Growth and Jobs targeted at improving the lives of EU citizens. EFS supports employment and helps enhancing citizens' education and skills, thereby improving their job prospects. It helps Member States make Europe's workforce and companies better equipped to face new, global challenges.
Funding is spread across the Member States and regions, in particular those where economic development is less advanced.

Over the period 2007-2013 EFS has a global budget of €75 billion.

ESF funding is organised under two broad objectives: the convergence objective[35] and the regional competitiveness and employment objective.

The convergence objective includes:

- Convergence regions: with a GDP per head of less than 75% of the EU-25 average (in the period 2007-2013)
- Phasing-out regions: with a GDP per head of more than 75% of the EU-25 average but of less than 75% of the EU-15 average (in the period 2007-2013)
-

The regional competitiveness and employment objective includes:

- Phasing-in regions: with a GDP per head of less than 75% of the EU-15 average (in the period 2000-2006) but of more than 75% of the EU-15 average (in the period 2007-2013)
- Competitiveness and employment regions: applies to all other EU regions

Throughout the Union, under both the convergence and the regional competitiveness and employment objectives, the ESF will provide support for five key areas of action:

- Increasing adaptability of workers and enterprises;
- Enhancing access to employment and participation in the labour market;
- Reinforcing social inclusion by combating discrimination and facilitating access to the labour market for disadvantaged people;
- Promoting partnership for reform in the fields of employment and inclusion;
- Expanding and improving investment in human capital, in particular by improving education and training systems.

In the least prosperous regions that fall under the convergence objective, the ESF will also support:

- Reinforced efforts to expand and improve investment in human capital, in particular by improving education and training systems;
- Action aimed at developing institutional capacity and the efficiency of public administrations, at national, regional and local level.

The ESF strategy and budget is negotiated and decided between the EU Member States, the European Parliament and the Commission. On this basis, seven-year Operational Programmes are planned by Member States together with the European Commission.

[35] The countries and regions eligible under the convergence objective will receive more than 80% of the EU funding.

These Operational Programmes are then implemented through a wide range of organisations, both in the public and private sector. These organisations include national, regional and local authorities, educational and training institutions, non-governmental organisations (NGOs) and the voluntary sector, as well as social partners, for example trade unions and works councils, industry and professional associations, and individual companies.

The European Social Fund is based on two principles:

- Co-financing - because EU financial support always runs alongside national public or private financing. Depending on a number of socio-economic factors, the co-financing may vary between 50% and 85% of the total cost of interventions.
- Shared management - because the guidelines for ESF actions are designed at European level, whereas implementation on the ground is managed by the relevant national or regional authorities in each Member State. These authorities prepare the Operational Programmes and select and monitor the projects.

For the running period of ESF funding (2007-2013), a new set of Regulations was adopted in 2006 and 2007. The relevant documents can be found at the following link: http://ec.europa.eu/employment_social/esf/discover/esf_library/regulation_en.htm .

IV.3 ERDF

The ERDF aims to help reinforce economic and social cohesion by redressing regional imbalances. This is achieved by supporting the development and structural adjustment of regional economies, including the conversion of declining industrial regions.

In short, it finances:

- investment which contributes to creating sustainable jobs;
- investment in infrastructure;
- measures which support regional and local development, including support and services for businesses, in particular small and medium-sized enterprises (SMEs);
- technical assistance.

The ERDF can intervene in the three objectives of regional policy:

- Convergence;
- Regional Competitiveness and Employment;
- European Territorial Cooperation.

Under the "Convergence" objective, the ERDF focuses its assistance on ERDF focuses its intervention on modernising and diversifying economic structures as well as safeguarding or creating sustainable jobs, with action in the following areas:

- research and technological development (R&TD), innovation and entrepreneurship;
- information society;
- environment;
- risk prevention;
- tourism;
- investment in culture
- investment in transport;

- energy;
- investment in education;
- investment in health and social infrastructures;
- direct assistance for investment in SMEs.

For the "Regional Competitiveness and Employment objective", the priorities are based on three sections:

- innovation and the knowledge economy, including the improvement of regional Research and Technological Development (R&TD) and innovation capacities, entrepreneurship and creation of new financial instruments for businesses;
- environment and risk prevention, including restoring contaminated land, encouraging energy efficiency, promoting the use of clean technology in public transport and formulating plans to anticipate and manage natural and technology-related risks;
- access to transport and telecommunications services of general economic interest, especially by improving secondary networks and encouraging access to information and communication technologies (ICT) for SMEs.

For the "European Territorial Cooperation objective", the ERDF focuses its aid on three main areas:

- development of cross-border economic, social and environmental activities through joint strategies for sustainable territorial development. This involves, for example, encouraging entrepreneurship, protection and management of natural and cultural resources, and the development of collaboration, capacities and the joint use of infrastructures;
- establishing and developing transnational cooperation, including bilateral cooperation between maritime regions. The priorities are innovation, the environment, better accessibility and sustainable urban development;
- reinforcing the effectiveness of regional policy by encouraging regional and local authorities to form networks and exchange experience.

At the request of the Member States, the Commission may propose rules on certain categories of expenditure to replace national rules.

It is the responsibility of the Member States to designate a single managing authority, a single certifying authority and a single audit authority.

As laid down in the general provisions, Member States can also delegate the task of managing authority and joint technical secretariat to the European grouping of territorial cooperation (EGTC), which is the legal cooperation instrument.

For a project to be selected under this objective, it must include beneficiaries in at least two countries which are acting jointly in at least two of these four fields: development, implementation, staffing and financing.

In the case of transnational cooperation, a programme may be implemented in a single Member State, provided it has been presented by at least two countries. Networks for cooperation and exchange of experience must consist of at least three beneficiaries in at least three regions and at least two Member States, and these must be acting jointly in all four fields.

Financing conditions depend on the location**.** Part-financing may be provided up to:

- 20% for cross-border cooperation in NUTS III areas adjacent to the EU's border areas;
- 20% for cross-border cooperation for operations including partners outside the area in question;
- 10% for cross-border and transnational cooperation to cover expenditure on operations in non-EU countries, if these operations are for the benefit of regions within the EU.

The ERDF also gives particular attention to specific territorial characteristics. ERDF action is designed to reduce economic, environmental and social problems in towns. Naturally disadvantaged areas geographically speaking (remote, mountainous or sparsely populated areas) benefit from special treatment. Lastly, the outermost areas also benefit from specific assistance from the ERDF to address possible disadvantages due to their remoteness.

The lists of Eligible Regions and Zones for the ERDF can be found in the two following Commission Decisions:

- Commission Decision **2006/769/EC** of 31 October 2006 drawing up the list of regions and areas eligible for funding from the European Regional Development Fund under the cross-border and transnational strands of the European territorial cooperation objective for the period 2007 to 2013 [Official Journal L 312 of 11.11.2006].
- Commission Decision **2006/595/EC** of 4 August 2006 drawing up the list of regions eligible for funding from the Structural Funds under the Convergence objective for the period 2007-2013 [Official Journal L 243 of 6.9.2006].

REFERENCES

Act	Entry into force and expiry date	Deadline for transposition in the Member States	Official Journal
Regulation (EC) No 1080/2006	1.8.2006	-	OJ L 210 of 31.7.2006

V. Active Labor Market Policies – Monitoring and Evaluation

V.1 Background

Active labor market policies (ALMP) can only at the margin affect the overall unemployment rate of an economy. Sound macroeconomic policies and a legal environment conducive to entrepreneurship are far more important for the birth of new firms and for sustained job creation, while labor market institutions that keep labor costs in check and that provide the right incentives for job search predominantly drive labor demand and labor supply. This does not mean, of course, that ALMP cannot play a role in the fight of unemployment and indeed ALMP measures have been put forth by policy makers and pundits in the EU-15 and in the NMS as an important tool to fight unemployment. Table V.1 provides a systematic listing of the various measures of ALMP as they have been employed in OECD countries over the last decades.

Table V.1. Active labor market policies in OECD countries: archetypical types of programs and generic purpose

Type of program	Generic purpose
a. Public employment services ("job brokerage") and administration	Improve matching efficiency
b. Labor market training	Attenuate skill mismatch; human capital accumulation
c. Employment incentives / Start-up incentives	Improve job matching process; increase labor demand
d. Direct job creation / Public sector employment	Increase labor demand; prevent human capital deterioration
e. Youth measures (training and/or subsidized jobs)	See b, c and d.
f. Measures for the disabled	Integrate discriminated persons into the labor market

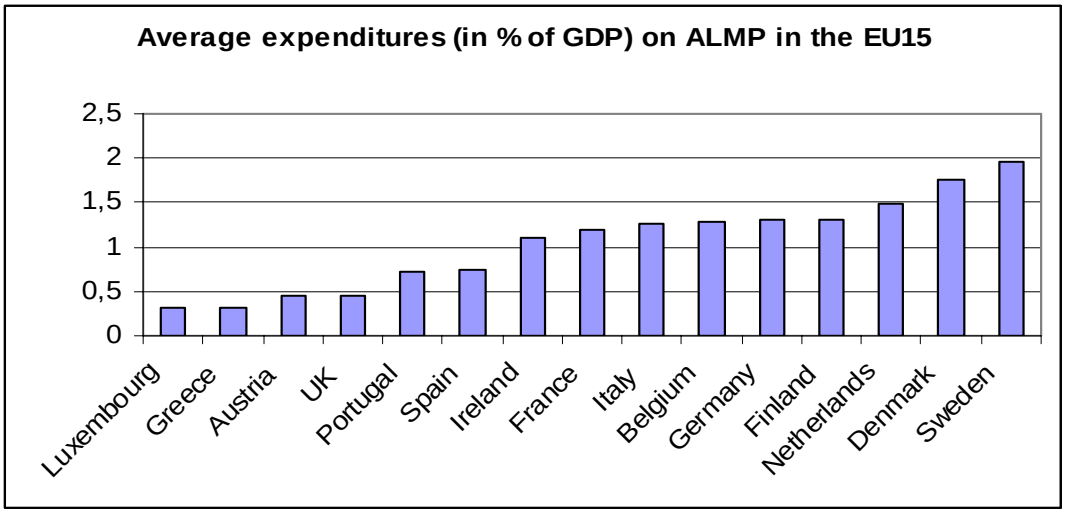
Source: Lehmann and Kluve (2009)

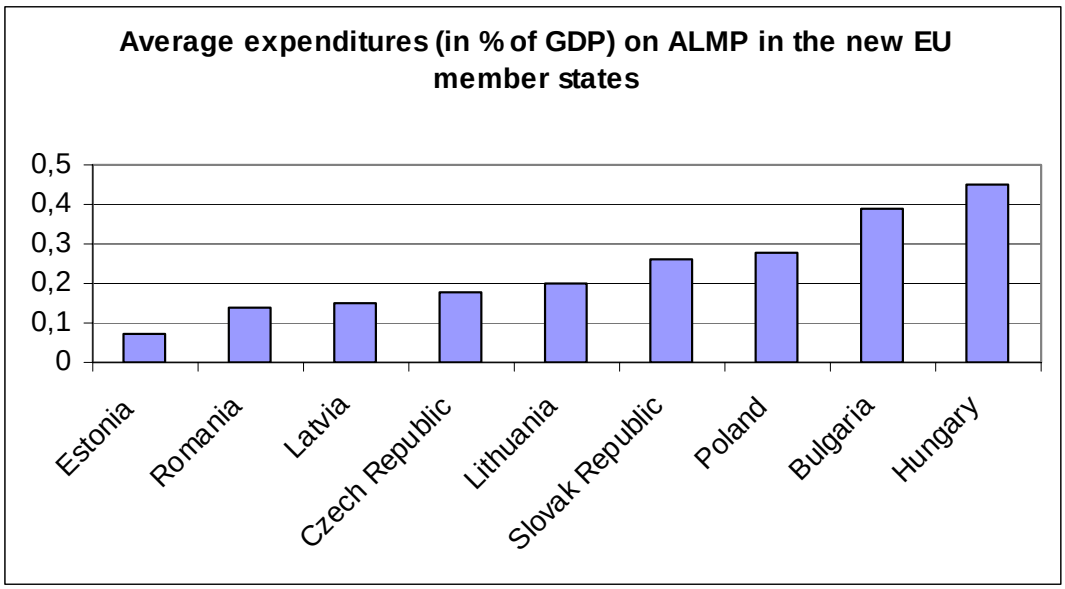
The table is pretty self-explanatory, so its discussion is kept to a minimum (for a more extended discussion, see Lehmann and Kluve (2009). The main purpose of the first type, public employment services (PES), is to make the matching of unemployed workers to vacant jobs more efficient. In most labor markets substantial friction in the informational flow can impede job matching: firms are unaware of unemployed workers who are willing to take up vacant posts while unemployed workers do not know of the existence of these jobs. By setting up public employment services that reduce these informational inefficiencies matching can be improved, sometimes in a dramatic fashion. In general,

private employment services, which are run for profit, are complementary to PES since they mediate jobs at the upper end of the skill distribution for the most part. Training measures are employed in order to attenuate skills mismatch: in many cases, unemployed workers do not have the skills that firms look for, so through re-training and further-training measures skills mismatch can, at least in principle, be remedied. The category "employment incentives" entails wage or job subsidies, as well as start-up incentives to the unemployed. The immediate purpose of these schemes is to increase labor demand. However, all schemes connected with subsidized employment have as a longer-term aim the building or re-building of human capital, a process which is supposed to allow the unemployed to enter regular, i.e. non-subsidized employment relationships. Direct job creation and employment by governmental agencies is often considered employment of last resort. This measure aims at the increase of labor demand and prevention of individual loss of human capital during (long) spells of unemployment. In most OECD countries youth unemployment is a serious problem, in particular because some school leavers have not acquired sufficient skills to be employable at a wage that generates a living income. Training measures for youth are meant to enhance the skills of these school leavers as are subsidized wage and job schemes. Measures for the disabled, consisting in financial incentives for firms to hire disabled workers on a priority basis or in the establishment of employment quotas for this group of workers, are conceived to essentially fight discrimination in the labor market.

The inspection and comparison of the two panels in figure V.1, which shows averages of ALMP expenditures over the years 1991 to 2005 for the EU-15 as well as for the NMS, gives us some immediate important insights. First, there is a wide variation in expenditure rates within both groups, which does not primarily depend on the unemployment rates for the countries. With regard to the EU-15 this implies that some countries have a more active stance regarding labor market policies (in particular the Scandinavian countries) while other countries treat expenditure on ALMP as a residual item in their labor market budgets. Second, expenditure rates in the NMS have been low in comparison with those rates in the EU-15 countries, with the highest spenders in the former spending roughly at the same rates as the lowest spenders in the latter group of countries. So, even though unemployment rates in the new member states are of the same magnitude as in the EU-15, and often higher, spending on ALMP is very limited. This is not surprising since transition countries have been confronted with major fiscal problems and have had particularly limited funds for labor market policies. In addition, since income support for the unemployed has priority in the eyes of policy makers and the public, active labor market policies are treated like a residual expenditure item in virtually all NMS. Consequently, the magnitudes have never been large enough for ALMP to have a major impact on the overall unemployment rate in these countries. Participation in ALMP measures might, however, be beneficial at the individual level and a substantial number of evaluation studies have been undertaken in the NMS with the attempt to establish the efficacy of these measures. In this context, a measure is considered effective if it raises the probability of employment in a regular job for participants and/or if it increases the productivity of a participant expressing itself in higher wages. We will see what Macedonian policy makers can learn from these evaluation studies in the NMS. Before we turn to this topic, we need to highlight those aspects of labor markets in transition countries in general and in the Macedonian labor in particular that render the application of ALMP potentially more complex than in mature OECD countries.

Figure V.1





Source: Lehmann and Kluve (2009)

V.2 Targeting of OECD-type programs in the Macedonian context

The main issue in connection with the applicability of ALMP measures to transitional labor markets is the targeting of these measures. Historically, the conventional wisdom in mature OECD countries sees "problem groups" among the unemployed, i.e. those groups who have particular problems to leave unemployment as the main target for ALMP measures. Especially the less-skilled, older workers and the long-term unemployed are often identified as the main target groups. At the same time an ALMP measure is considered effective if it improves the prospects of participants to find regular employment and/or better paying regular jobs after the end of the program. Linking targeting of problem groups among the unemployed with the stipulation that a measure is effective if it increases the likelihood of regular employment for participants can be considered the conventional OECD rationale that is behind the application of ALMP measures.

However, in the transition context it might be highly ineffective to combine the targeting of ALMP at problem groups with the acclaimed aim to lift these groups into regular employment. In virtually all transition countries, certainly in the first decade of transition, there are at least five stylized facts of their labor markets that we need to keep in mind when discussing the applicability of the OECD "recipe" in connection with ALMP.

First, the demand for labor is low in international perspective in transition economies that seem to have only a limited capability to create new jobs. As we have seen in the introduction, the job creation capabilities of Macedonian enterprises seem particularly limited for the years for which we have data. A limited job creation capability implies that new firms in the private sector are not able to absorb the bulk of workers who are displaced from shrinking firms. This lack of absorption leads to the second stylized fact, namely the "stagnant" nature of the pool of unemployed (Boeri, 1994) with very low outflow rates compared to the rates in mature OECD countries. The outflow rates from unemployment in Macedonia that we reported above are very low even if we compare them to rates in the NMS, leading to a duration structure of unemployment that is incredibly skewed towards long durations of unemployment. A duration structure with a bias towards long-term unemployment is the third stylized fact that we wish to cite. Fourth, low labor demand and low outflow rates from unemployment make competition for jobs among the unemployed more fierce in labor markets of transition countries than in labor markets of mature OECD countries. Finally, we can find a larger stock of accumulated human capital among the unemployed – and often even among the long-term unemployed – than is usually present among the unemployed, especially those with long spells, in mature OECD countries.

If ALMP measures are meant to raise the chances of the unemployed to enter regular employment it might be very inefficient to focus on the most vulnerable groups among the unemployed. In transitional labor markets, such a focus does not necessarily enable such participants of ALMP measures to compete for regular jobs as long as labor demand is weak.

Let us take the example of the pool of registered unemployed in Macedonia and let us look at three dimensions separately, namely education, duration of unemployment spell and age. Education can be taken as a proxy for skills albeit a rather imperfect one. In 2007 and 2008 roughly half the stock of the unemployed lack any skills, while about a quarter of the unemployed have at least medium education. If we target, e.g., a training measure on the unskilled, it is not clear whether this group can compete with the large stock of better educated among the Macedonian unemployed. As discussed previously, the duration structure of registered unemployment in Macedonia is extreme insofar as 85 percent of the unemployed are more than a year out of a job and as 30 percent have a presumably uninterrupted spell of unemployment of eight years or more. If an ALMP measure were targeted at these very long-term unemployed, it is certainly debatable whether a majority among participants from this group will have improved prospects for regular jobs as they have to compete with short-term unemployed and new labor market entrants. Unemployment is quite evenly spread across the various age groups in Macedonia, with about 60 percent of the unemployed finding themselves in the core age group of the workforce (25 to 49 years of age), roughly 15 percent being younger and 25 percent being 50 years of age or older. Targeting a measure at the older workers as the OECD "recipe" would demand might also be rather ineffective since employers might not hire older workers even if they have gone through an ALMP measure. The upshot of these

considerations is that as the long-term aim of ALMP measures is to lift participants into regular employment, targeting the most vulnerable individuals, i.e. those with the lowest outflow rates form unemployment, might be a very ineffective application of labor market policy.

The targeting issue is particularly acute in the Macedonian case since along the age dimension we can also think of unemployment as having a dichotomous nature. In essence we have new labor market entrants who have not been able to find a job and older workers who have experienced long unemployment spells and seem to have very limited chances or a very limited willingness to leave the state of unemployment (Betcherman and Pages, 2008). A policy of e.g. wage or job subsidies targeted at the older group will increase labor demand in the short term and will contribute to a policy that tries to fight social exclusion, an important social policy objective of the EU. It is, however, highly debatable, for all the reasons cited above, whether such a policy has any long-run effects that render this group more competitive and thus enhance the efficient functioning of the Macedonian labor market. The available evidence (see the next section) also suggest that re-training displaced workers, who have lingered on in unemployment, hardly ever helps these workers to find new regular employment. Hence, it might be more desirable to focus the available resources on the younger group and target e.g. wage/job subsidies and start-up incentives and training measures at this group if long-run effects of ALMP have a clear priority for Macedonian policy makers.

Another reason why it might be decisively better to target ALMP at young new labor market entrants is the existence of wide-spread informal employment (cf. Jackman, 2007). While there is no hard evidence on the extent of informal employment in Macedonia, Schneider (2004) puts the size of the grey economy at 36 percent of GDP[36] and casual observation seems to suggest that extreme poverty, which is predominantly caused by long spells of factual unemployment, is not widespread in Macedonia. As we have seen in section II, at least 40% of the long-term do not receive any income support from the state. This fact, the estimate of Schneider and the absence of extreme poverty on a massive scale seem to suggest that many of the long-term unemployed are engaged in informal employment, at least on a seasonal or temporary base. Consequently, many of the so called long-term unemployed do not belong to the group of those who indeed experience an uninterrupted spell of unemployment exceeding a year. Developing ALMP measures targeted at the long-term unemployed seems, therefore, especially counterproductive in the Macedonian case. A final reason why active policies should be targeted at the young new labor market entrants is the very high incidence of unemployment among this group (nearly 60 percent). Clearly, if a majority of the young see themselves deprived of opportunities in the domestic labor market this bodes badly for the economic development of the Macedonian economy in the medium run. The root causes of this high incidence can probably be seen in the failure of the educational system to provide the young with the right skills and in the low job creation capacity of Macedonian enterprises. However, it is worthwhile to contribute to the expansion of both labor supply and demand by targeting ALMP measures in particular at the young. Which measures have been deemed to be above all effective in European labor markets is the topic we now turn to.

[36] Schneider's attempts to estimate the size of the grey economy across a multitude of very different types of economies are not without its critics (Feige and Urban, 2008).

V.3 The effectiveness of ALMP: Lessons from the NMS and from the EU-15 states

Our assessment of the effectiveness of ALMP in the NMS and the states of the EU-15 is based on surveys, recent individual country evaluations and meta studies. Lehmann (1995) and Betcherman, Olivas and Dar (2004) survey the evaluation studies of early and late transition respectively. Since the latter survey several microeoconometric studies have been undertaken that are discussed in Lehmann and Kluve (2009) from a methodological point of view. Here they are included with their efficacy in mind. The meta studies by Kluve (2007) and by Card, Kluve and Weber (2009) are another important source.

Establishing a well functioning public employment service (PES) improves the matching effectiveness of the labor market. Spending money on the improvement of PES is considered highly effective in the literature. The costs are relatively low since the benefits of a better matching of vacancies to the unemployed can be spread over a large number of unemployed. A better functioning PES is, however, not a panacea for the fight against unemployment. Unemployed workers can only be matched to jobs that exist and vacant jobs can only be matched to unemployed workers who have the required skills. If the economy is not able to produce many new regular jobs or if the unemployed workers have the wrong skills, even a well functioning PES will not be able to support the creation of many matches. Another important result regarding job brokerage tells us that intense monitoring of unemployed individuals' job search by PES staff and the application of sanctions in the case of lax search efforts do only bear fruit in terms of larger outflow rates from unemployment, brought on by more matching or by voluntary exit from the register, if the economy can create enough jobs. It is no accident, therefore, that intensified monitoring of job search and the imposition of sanctions work well in the mature EU-15 countries, while these tools seem rather ineffective in the NMS where job creation rates have been lower compared to the former group of countries. The well designed evaluation study by Micklewright and Nagy (2005) shows this ineffectiveness clearly for the Hungarian labor market.

One of the main lessons from the evaluation studies is the necessity to stratify the treatment group by various dimensions, e.g. age, gender, labor force status prior to treatment, if one wants to fully understand the effectiveness of a measure. Training and re-training measures are a case in point. In a European context we are mainly interested in increased employment probabilities as the desired outcome of this measure.[37] The evidence on the effectiveness of training measures is mixed insofar as displaced workers undergoing training have little success in finding new jobs, while many of the general unemployed do find work after training albeit for the most part only in the short term. Training seems definitely more effective for women than for men, while the training of young school leavers who lack skills for the labor market seems hardly ever to give positive results. Using a linear probability model, Kluve (2007) shows that evaluation studies of training with the target group being the young are about 40 percent less likely to report a positive outcome than studies with more diffuse target groups. At any rate, care has to be taken when selecting participants for training measures and most evaluation studies that find positive treatment effects of training often demonstrate so called "creaming effects", i.e. participants seem to be selected because they show better than average observed

[37] In the more flexible labor market of North America, where low wages are the main result of a lack of skills and not so much unemployment like in the more rigid European labor markets, the main focus in evaluation studies of training and re-training measures is on increased wages.

characteristics (like, e.g., education, previous labor market status). An additional important finding states that training measures are especially effective if they involve employers who can influence the skills profiles of the offered training courses. A careful application of training is also vital because the cost per successful treated person is much higher than in any other program.

Employment incentives like wage and job subsidies have a mixed record. For example Kluve, Lehmann and Schmidt (2008) report that participants in a Polish job subsidy program ("intervention works") have rather less chances to find a regular job than non-participants. Lubyova and van Ours (1999) find that temporary subsidized jobs in Slovakia ("publicly useful jobs") have a positive impact on outflows to regular employment. According to the literature, there are three distortions often at work with the application of wage and job subsidies: substitution, dead weight and lock-in effects. As far as the latter effect is concerned, if temporary job subsidies are given for very long-periods of time (e.g. for two years) participants will be locked into those temporary jobs and will substantially lower their efforts to search for regular employment (van Ours, 2004). Substitution occurs if regular workers are replaced with subsidized workers, while we speak of dead weight if employers hire subsidized workers whom they would have hired even in the absence of the subsidy. Consequently, it is vital to design ALMP measures very carefully so as to minimize the mentioned distortions.

Start-up incentives have in general a good press, even though for most countries the number of cases is too limited to perform a rigorous evaluation. There are two main theoretical considerations that one can make in connection with such programmes. First, note that most of the start-up incentive schemes are geared towards services. Also, displacement of output effects, i.e. the crowding out of non-subsidized business activities by subsidized ones, which are a danger with these schemes, are larger the more developed the service sector of an economy is. In those countries where the service sector is not as developed as in mature capitalist economies, displacement of output effects should, therefore, be less of a problem. Second, it is in the nature of these start-up incentive schemes that they can be targeted only at a small minority among the unemployed, namely the better educated and the highly motivated. It is certainly no accident that in all NMS where these schemes are used potential participants are carefully vetted so as to guarantee longevity to these subsidized new business initiatives. On a more fundamental level it should also be clear that subsidizing business start-ups by the PES can only be a second best solution. It would be better to improve the banking sector to such a degree that it would be able to provide finance to those individuals, whether unemployed or not, who have a promising business project. The government should only provide this kind of finance until the banking sector has become mature enough to grant loans to individuals with solid projects.

Table V.2. Active labor market policies in OECD countries: types of programs, their costs and effectiveness

Type of program	A. Costs B. Evidence on Effectiveness
a. Public employment services ("job brokerage") and administration	A. relatively cheap B. highly effective* (unanimous)**
b. Labor market training	A. relatively very expensive B. effective (mixed)***
c. Employment incentives / Start-up incentives	A. relatively expensive B. effective (mixed)
d. Direct job creation / Public sector employment	A. relatively expensive B. ineffective (unanimous)

Note: * "effective" means that the average employment or reemployment probability of a person participating in the indicated measure is increased.
** "unanimous" means that virtually all studies show the indicated effect.
*** "mixed" means that some studies show the indicated effect but other studies do not.

Direct job creation schemes by the government, often called public works, are nearly unanimously found to be ineffective in that they do not improve a participant's chance to find regular employment after the end of the scheme. However, public works schemes might be beneficial as a social policy, i.e. they might fight immediate poverty in the short term. During a severe downturn of the business cycle they also might increase labor demand in the short run, and thus help stabilize the labor market over a short span of time. But, public works schemes are certainly not a tool that can contribute to the solution of structural unemployment. In the past, governments in the NMS have often been pressurized by trade unions to concentrate on public works as the main ALMP. Giving in to such pressures was a major error as these schemes were found to be the least effective.

While it is not possible to quantify the effectiveness of the various policies in relation to each other in any precise way, it is pretty certain which policy should for sure be adopted and which policies should be if possible avoided. Improving the PES is a relatively cheap measure that gives big positive effects, at least once job creation in the economy starts to take off. Public works, on the other hand, is the measure that should be avoided as much as possible. Labor market training and employment and start-up incentives are in between, they need to be devised and targeted very carefully to minimize distortions and to produce positive employment effects in the medium term.

V.4 Recommendations for PES and ALMP in Macedonia

Mojsoska-Blazevski (2008) discusses ways to improve the PES in Macedonia. Many of the suggestions put forward should be considered by Macedonian policy makers. For example, reforming the organizational structure of the ESA with the aim to have ESA officials concentrate on job brokerage and benefit administration where these two functions are, however, run by separate units is an excellent suggestion. The proposition dealing with a reform of the tri-partite structure of the Administrative Board is also of great relevance and should be adopted with the idea in mind to have stakeholders of roughly equal weight. It is in this context that too weak trade unions are not necessarily a blessing.[38] Streamlining the information system for both unemployed workers and employers is another suggestion that should be pursued. The proposed reforms might not pay off in the very immediate future, but they are vital if Macedonia wants to have a well functioning PES when the economy starts to take off. Also, the Macedonian government should proceed sequentially insofar as ALMP measures apart from job brokerage should only be introduced on a larger scale after the ESA reforms have been completed.

The idea to drop earnings related unemployment benefits and introduce flat rate benefits for 12 months should be adopted. This reform would certainly lighten the administrative burden and would increase the search efforts of those among the unemployed with previously relatively high earnings. An initially established level should not be indexed in my opinion to wage growth but to the growth of the cost of living, i.e. to the CPI.

But what happens to the long-term unemployed? Some means-tested social assistance should be envisaged that guarantees minimum subsistence.[39] Such a recommendation is, of course problematic, given the state of the Macedonian economy and given the fact that more than 85 percent have unemployment spells of more than a year and 30 percent have an unemployment spell of eights years or longer. Some attempts to stimulate job search for the long-term unemployed should be made to avoid a permanent unemployment trap, although it is not very likely that individuals with such long unemployment spells can easily be reintegrated into the regular labor market. In addition, the situation is complicated because of the probable large incidence of informal employment among the long-term unemployed. One way to partially deal with this problem is to use the proposed intensification of monitoring and the application of sanctions to the detection of informal employment relationships. Such detected relationships should then be sanctioned with de-registration. Intensifying the monitoring of job search by the unemployed in general might not result in great matching improvements, as I argued above, if labor demand is and remains weak.

Which ALMP measures should be applied in Macedonia once the PES have been improved? Jackman (2007) discusses the various measures that have been started, but as he points out these are pilot projects financed and run by UNDP. So, I will not discuss these here. From my assessment above, it seems pretty obvious that public works schemes should be avoided if possible. Also youth measures in a strict sense as applied in many countries,

[38] In many NMS only the government has really political cloud, while neither trade unions nor employers' associations have much weight in these commissions. The "flexicurity" strategy pursued by the EU can only work if there is a social consensus about its desirability. This social consensus can be achieved when the non-governmental representatives in the tri-partite commissions represent workers and employers in a powerful way (Cazes and Nesporova, 2007).

[39] Roughly 60% of men and 40% of women receive some kind of income support from the Macedonian state. Whether this income support is at the subsistence level or above I was not able to ascertain.

i.e. helping school drop outs and other non-performers in school via training or subsidized jobs to gain skills for regular employment, should not be tried since such youth schemes have hardly ever been successful. To help this group, it is certainly more effective to work on school reforms that reduce drop out rates and further skills while in school.

In general, training and re-training as well as employment and start-up incentive schemes should be applied. Given the limited resources available for such schemes, targeting becomes an important issue.[40] The dominant target group should in my opinion consist of young new labor market entrants. Many of these young workers actually have relatively high educational attainment but cannot find formal employment commensurate with their skills. Employment and start-up incentive schemes, which, however, carefully vet potential participants, might form a bridge until the economy can generate more regular jobs on its own. Retraining young labor market entrants strikes me as less advisable since this would imply that the educational system has failed to provide the right skills for the labor market. Such a lack of the right skills should be addressed by reforming the educational system in order to ensure that school leavers have the skill profiles that enterprises need.[41] Re-training and training schemes should be targeted at a small subgroup of older workers who are particularly strongly motivated and who really apply themselves towards the aim of reentering the labor market. Taking the "cream" of the unemployed unto training schemes strikes me as the only efficient use of scarce resources given the state of the Macedonian labor market.[42]

The majority of the unemployed who are older, of average or little motivation, and who have long spells of unemployment (if we ignore the issue of informality here) should in my opinion not be targeted for ALMP measures under the given circumstances. They should instead be helped with the means-tested social assistance that we mentioned above.

VI Conclusions and overall recommendations

As already stressed several times accession per se is not a major challenge as far as the labor market is concerned. For all NMS, it was vital long before accession to facilitate the integration into the world economy by making their labor markets more flexible. Another major challenge was how to deal with the many workers displaced from declining sectors and firms who were unable or unwilling to find regular employment in the new environment.

When after accession the economies of the NMS started to boom it turned out important how governments had dealt with the issue of more flexible labor market institutions and the issue of displaced workers. For example, "deactivating" large sections of the older workforce, as it occurred in Poland, resulted in an insufficient domestic labor

[40] Certainly before accession these means will be very limited, but even once a member of the EU the available funds described in the previous section will require their efficient targeting.

[41] As stated above, the Macedonian government is engaged in a survey of enterprises with the aim to have the curricula in schools produce skill profiles that come closer to the wishes of enterprises.

[42] "Creaming effects" have been observed in, e.g., Hungary and Poland in connection with training measures, i.e. PES officials have chosen those with better observed characteristics for these measures. These "creaming effects" are often critized in the context of mature capitalist economies as containing an element of dead weight loss. However, in labor markets where labor demand is weak and competition among the unemployed is strong, targeting the "best" among the unemployed might be the appropriate response to such an anemic labor market.

pool from which skilled labor could be drawn in times of economic expansion. The skills shortages observed after 2004 were also caused by a very sluggish reform of vocational education and a tax system that made part-time and temporary work unattractive for employers. In times of excess demand for labor unskilled and low skilled unemployed workers did not find employment because of too large tax wedges at the lower part of the skill distribution. Whatever the partial failings of policy makers in the NMS while preparing their labor markets for accession, one needs to stress that overall the reforms of labor market institutions resulted in labor market structures that were in general at least as flexible as those of the EU-15. The reported "jobless growth" in the years preceding accession should, therefore, be mainly attributed to the slow elimination of labor hoarding and to belated "true" restructuring efforts in these economies. One reason for the slow elimination of hoarded labor was the employment protection of regular jobs, which was much more rigid than in the old member states.

Policy makers in Macedonia should, however, be aware that labor market policies that increase the flexibility of the labor are not a panacea for large job creation. This statement certainly applies to the Macedonian labor market, which has already achieved quite flexible institutions at the time of writing. Good labor market policies are only a complementary tool to sound macro and investment policies and policies to create a favorable business environment. This does not mean that labor market policies are unimportant as a poorly functioning labor market can retard growth and development in a major way.

The accession process for Macedonia will be a medium-term affair and Macedonian policy makers have the time to implement policies that are based on the lessons that we can learn from the partial failings as well as from the successful elements of labor market reform in the NMS. Some of these recommended policies are either already implemented[43] or contemplated, in other words some of the recommendations confirm the intentions of the Macedonian government regarding reforms of the labor market.

- Nearly half of all unemployed are unskilled or low skilled workers. It is, therefore, important to increase the employment rate of these workers by ensuring a low tax wedge at the lower end of the skill distribution. The reform proposals by Leibfritz (2008) go into this direction.

- Like in the NMS, Macedonian enterprises identify skills shortages as one of the constraints of employment growth. Reforming vocational education after consulting firms about their skills requirement should, therefore, be a priority of the Macedonian government. It is, however, vital to do a survey of firms' skills requirement based on nationally representative samples, which has not yet been achieved.

- While temporary work is wide-spread for new jobs, part-time employment is miniscule in international perspective. Tax policies to make part-time work more attractive to employers should be pursued as they allow more persons to enter into gainful employment.

[43] If I am not mistaken, in 2008 the Macedonian government adopted one of the most flexible employment protection legislations in Europe. So we will not refer to this below.

- Increasing the skill level of the workforce can also be achieved by re-training and further training of the unemployed. Whether to target older and long-term unemployed workers or young new labor market entrants is in the end a political choice. From an efficiency point of view we would argue that targeting young new labor market entrants should be the pursued policy.

- The previous recommendation does not mean that one should retrain and further-train youngsters who have dropped out of school or were low performers in school and are for these reasons unemployed. To our knowledge, training programs targeted at this group have not worked in any country and should not be pursued. The right policy is here to reform the educational structures to minimize bad educational outcomes. Given the many necessary reform efforts, dealing with this group should probably not be a priority.

- If efficiency considerations are given priority, then other ALMP measures that were found relatively effective in the NMS, like employment incentive schemes, should also be predominantly targeted at young new labor market entrants

- One instrument of ALMP that should not be used in a major way is public employment schemes. They can be thought as a social policy giving some income to workers, but they hardly ever improve the performance of the labor market.

- Since strong economic growth will eventually come to Macedonia, one has to be conservative when "deactivating" older displaced workers. The very aggressive policies applied, for example, in Poland resulted in a large part of the older working age population to be on early retirement schemes or on disability benefits, at a time when skills shortages started to occur. Thus such excessive "deactivation" policies should be avoided.

- A strong system of monitoring the unemployment is also important given that the vast majority of the unemployed are long-term unemployed. Especially this latter group should be monitored regarding informal work in the underground economy.

- Reform of the PES should ensure that it concentrates its activities on 3 areas: paying out benefits, administering active labor market policies and monitoring activities of the long-term unemployed. When possible, these activities should be undertaken by separate units.

- At the moment very little is know about worker and job flows in the Macedonian labor market, search behavior of the unemployed, informal employment relationships and other important issues. Policy makers need, however, to make informed decisions, which can only be made when an increased effort of data collection and analysis is undertaken. The Macedonian Statistical Office should, therefore, make the Labor Force Survey data in their entirety available to outside academic researchers. This openness regarding labor market data would also be considered well by the EU authorities.

References

Angel-Urdinola, Diego F. and Victor Macias, 2008. “FYR Macedonia, Labor Market Profile”, World Bank, unprocessed.

Anspal, Sten and Andres Võrk, 2007. “Labour Market Institutions and Productivity”. PRAXIS Working Paper No. 27, Tallinn, PRAXIS Center for Policy Studies.

Betcherman, Gordon, Karina Olivas and Amit Dar, 2004. “Impacts of Active Labor Market Programs: New Evidence from Evaluations with Particular Attention to Developing and Transition Countries.” Social Protection Discussion Paper 402, The World Bank.

Betcherman and Pagés, 2008. Memorandum on Macedonia Labour Market. Unprocessed.

Boeri, Tito, 1994. “Labour Market Flows and the Persistence of Unemployment in Central and Eastern Europe”, in: Boeri, T. (ed.), Unemployment in Transition Countries: Transient or Persistent?, OECD, Paris, 13-56.

Boeri, Tito and Garibaldi, Pietro, 2006. "Are labour markets in the new member states sufficiently flexible for EMU?," Journal of Banking & Finance, Elsevier, vol. 30(5), pages 1393-1407, May.

Boeri, Tito and Katherine Terrell, 2002. "Institutional Determinants of Labor Reallocation in Transition," Journal of Economic Perspectives, American Economic Association, vol. 16(1), pages 51-76, Winter.

Booth, Allison, 1995. The Economics of the Trade Union. Cambridge University Press.

Bruecker et al., 2002. The Impact of Eastern Enlargement on Employment and Labour Markets in the EU Member States, Brussels: European Commission 2001 (with Tito Boeri et al.).

Card, David and Alan Krueger, 1995. Myth and Measurement: The New Economics of the Minimum Wage. Princeton University Press.

Card, David, Jochen Kluve and Andrea Weber, 2009. “Active Labor Market Policy Evaluation: A Meta Analysis”, Berkeley and Essen, mimeo.

Cazes Sandrine and Alena Nesporova, 2007 Flexicurity: A relevant approach in Central and Eastern Europe. ILO.

Davis, Steven, John Haltiwanger and John Schuh, 1996. Job Creation and Job Destruction, MIT Press.

Eamets, Raul and Masso, Jaan, 2004. "Labour Market Flexibility and Employment Protection Regulation in the Baltic States," IZA Discussion Papers 1147, Institute for the Study of Labor (IZA).

Feige, Edgar L. and Urban, Ivica, 2008. "Measuring underground (unobserved, non-observed, unrecorded) economies in transition countries: Can we trust GDP?," Journal of Comparative Economics, Elsevier, vol. 36(2), pages 287-306, June.

Feldmann, Horst, 2004. “How Flexible are Labour Markets in the EU Accession Countries Poland, Hungary and the Czech Republic?” Comparative Economic Studies, vol. 46, pages 271-310.

Freeman, Richard B. and James L. Medoff, 1980. "The Two Faces of Unionism," NBER Working Papers 0364, National Bureau of Economic Research, Inc.

Fulton, L. 2007: Worker representation in Europe. Labour Research Department and ETUI-REHS, Brussels.

Hirschman, Albert, 1970. Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States. Cambridge, MA: Harvard University Press.

Jackman, Richard, 2007. “UNDP Employment Programmes: Mid-term Evaluation”, mimeo.

Kennan, John, (1995). “The Elusive Effects of Minimum Wages”, Journal of Economic Literature, vol. XXXIII, Pages 1949-1965, December.

Kluve, Jochen, 2007. “The effectiveness of European Labor Market Policy, Essen, mimeo.

Kluve, Jochen, Hartmut Lehmann and Christoph M. Schmidt, 2008. "Disentangling Treatment Effects of Active Labor Market Policies: The Role of Labor Force Status Sequences," Labour Economics, vol. 15(6), Pages 1270-1295, December.

Lehmann, Hartmut, 1995. “Active Labour Market Policies in the OECD and in Selected Transition Countries”, Economic Policy Working Paper, no. 1502, The World Bank, Washington.

Lehmann Hartmut, Kupets Olga and Norberto Pignatti, 2005. Labor Market Adjustment in Ukraine: An Overview. Background Paper prepared for the World Bank Study on the Ukrainian Labor Market, Bologna and Kiev, mimeo.

Lehmann, Hartmut and Jochen Kluve, 2009. “Assessing Active Labor Market Policies in Transition Economies”, in Caroleo, Ernesto. and Francesco Pastore (Eds.), *The Labor Market Impact of EU Enlargement*, Physica Verlag, Heidelberg, forthcoming.

Leibfritz, Willi, 2008. Increasing employment in FYR Macedonia – the role of labour taxation, mimeo.

Lubyova, Martina and van Ours, Jan C., 1999. "Effects of Active Labor Market Programs on the Transition Rate from Unemployment into Regular Jobs in the Slovak Republic," Journal of Comparative Economics, Elsevier, vol. 27(1), pages 90-112, March.

Manning, Allan, 2003. Monopsony in Motion, Princeton University Press.

Micklewright, John and Gyula Nagy, 2004. "Job Search Monitoring and Unemployment Duration in Hungary: Evidence from a Randomised Control Trial," IZA Discussion Papers 1839, Institute for the Study of Labor (IZA).

Ministerswo Gospodarki i Pracy, (MGiP), 2005. Zatrudnienie w 2005 (Employment in 2005), Warsaw.

Mojsoska-Blazevski, Nikica, 2008. “Proposals for Reforming the Public Employment Service.” Skopje, mimeo.

Nickell, Stephen, Luca Nunziata and Wolfgang Ochel, 2005. "Unemployment in the OECD Since the 1960s. What Do We Know?," Economic Journal, Royal Economic Society, vol. 115(500), pages 1-27, 01.

Nickell, Stephen, 1997. "Unemployment and Labor Market Rigidities: Europe versus North America," Journal of Economic Perspectives, American Economic Association, vol. 11(3), pages 55-74, Summer.

Perugini, Cristiano & Marcello Signorelli, 2004. "Employment Performance and Convergence in the European Countries and Regions," European Journal of Comparative Economics, Cattaneo University (LIUC), vol. 1(2), pages 243-278, December.

Rodrik, Dani and Arvind Subramanian, 2008. “Why did Financial Globalization Disappoint”? Boston, MA, mimeo.

Romih, Dejan and Mejra Festić 2008. “Labour Market Flexibility And Employment Protection Legislation In New EU Member States.” 2008 IABR & TLC Conference Proceedings San Juan, Puerto Rico, USA

Rutkowski, Jan, 2007. “From the Shortage of Jobs to the Shortage of Skilled Workers: Labor Markets in the EU New Member status, IZA Discussion Paper 3202, December.

Schneider, Friedrich, 2004. “The Size of the Shadow Economies of 145 Countries all over the World: First Results over the Period 1999 to 2003.” IZA Discussion Paper 1431, December.

Siebert, Horst, 1997. "Labor Market Rigidities: At the Root of Unemployment in Europe," Journal of Economic Perspectives, vol. 11(3), pages 37-54, Summer.

Socha Mieczyslaw and Urszula Sztanderska, 2007. “Poland” in Cazes Sandrine and Alena Nesporova. Flexicurity: A relevant approach in Central and Eastern Europe. ILO.

Tonin, Mirco, 2005. “Updated Employment Protection Legislation Indicators for Central and Eastern European Countries”, Institute for International Economic Studies (IIES), Stockholm University.

van Ours, Jan C., 2004. "The locking-in effect of subsidized jobs," Journal of Comparative Economics, vol. 32(1), pages 37-55, March.

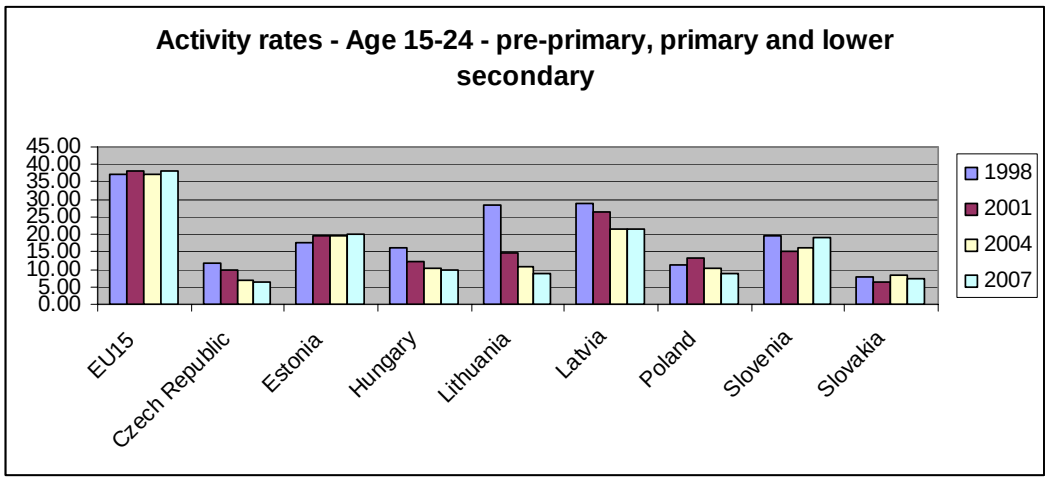
Vaughan-Whitehead, Daniel, “What World of Work in EU New Member States?” Journal for Labor Market Research, vol. 37 (4), pages 335-345.

Williamson, Oliver E., 1985. The Economic Institutions of Capitalism, The Free Press.

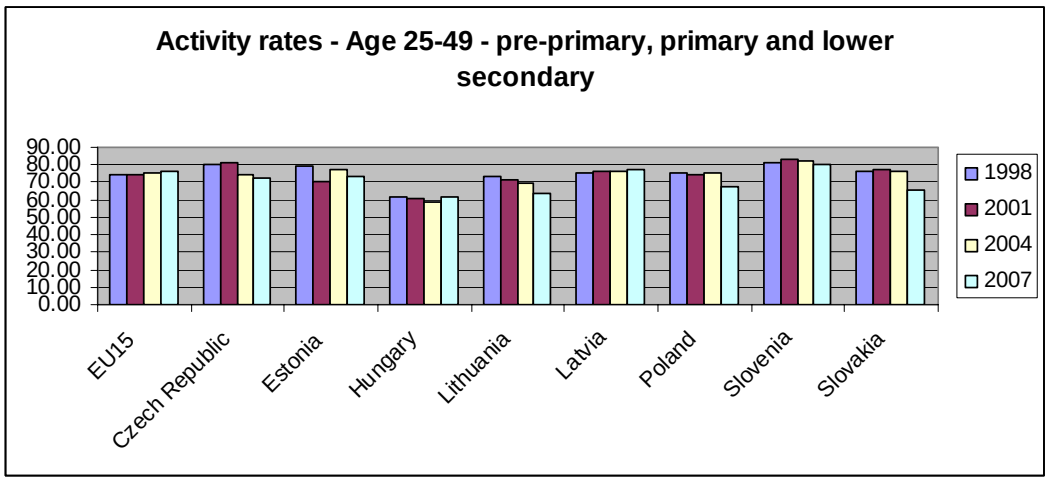
APPENDIX – FIGURES

Figure A1

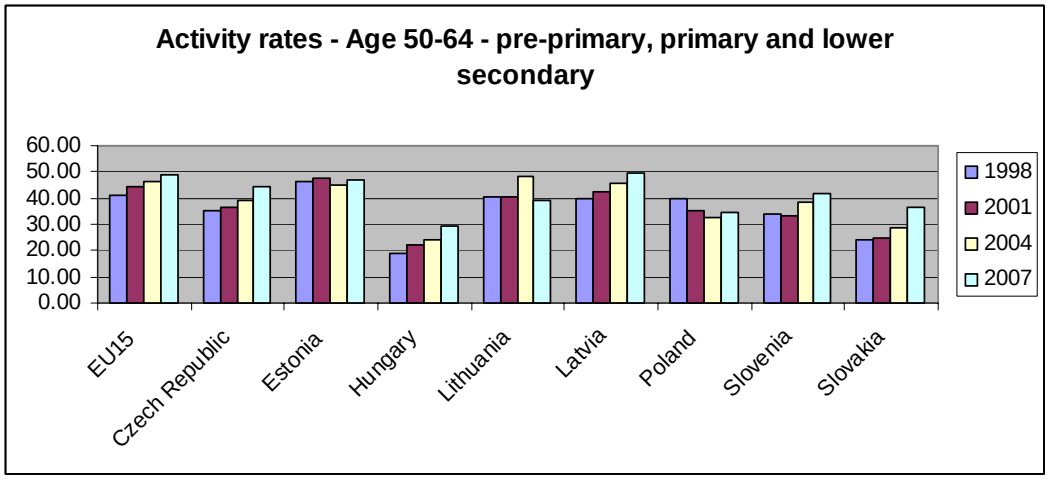
Panel A



Panel B



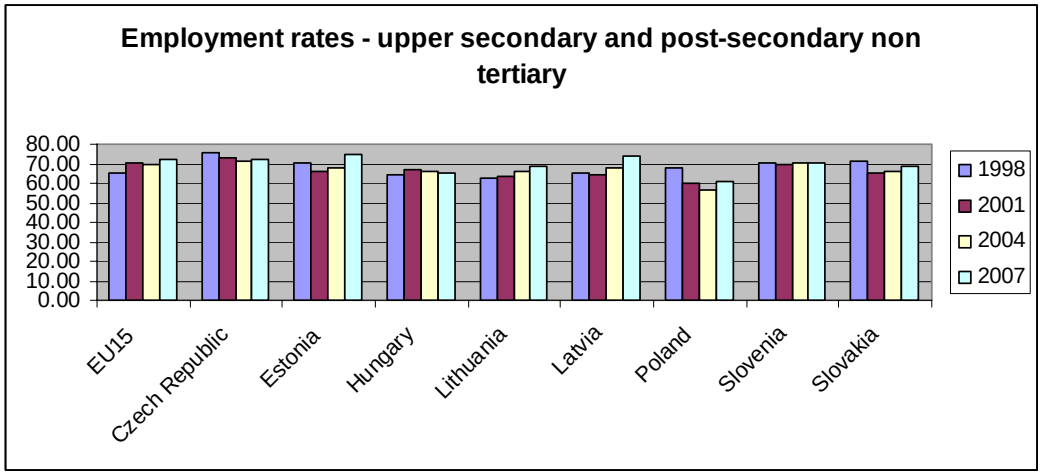
Panel C



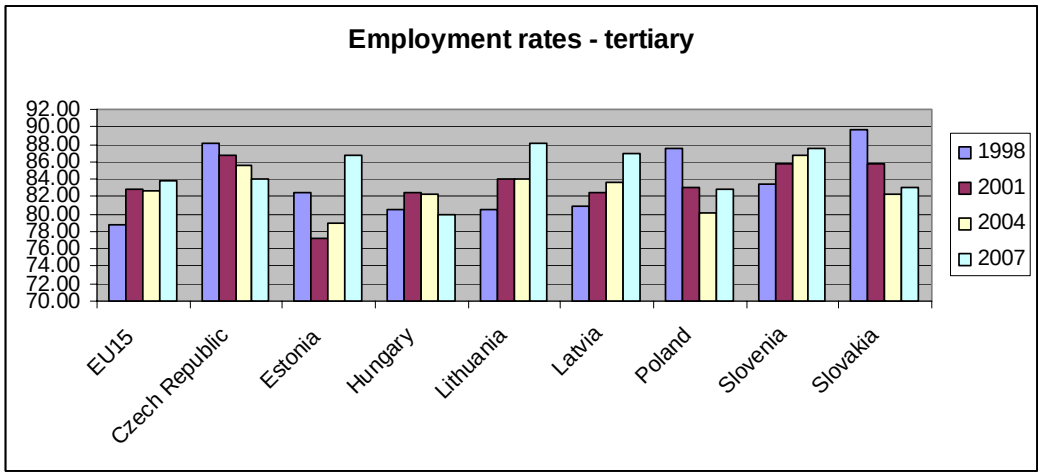
Source: Eurostat

Figure A2

Panel A



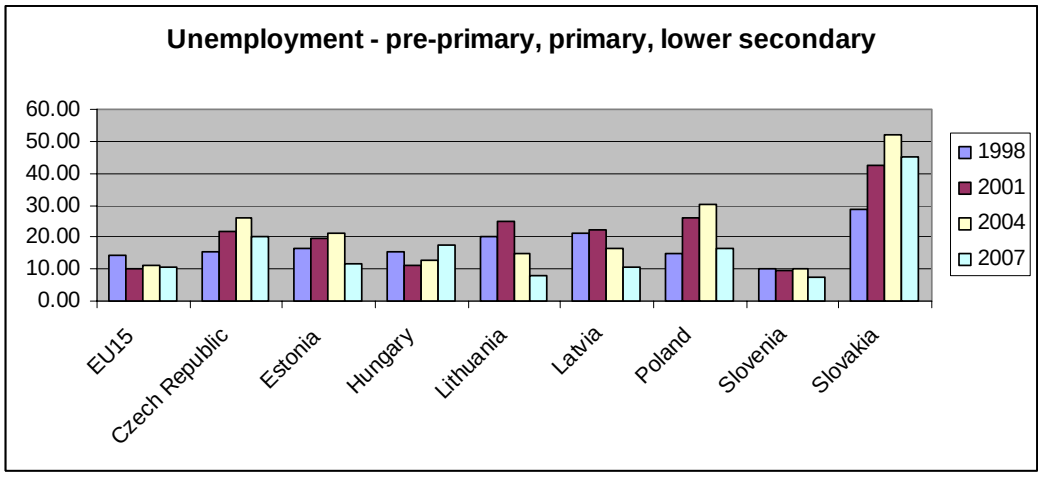
Panel B



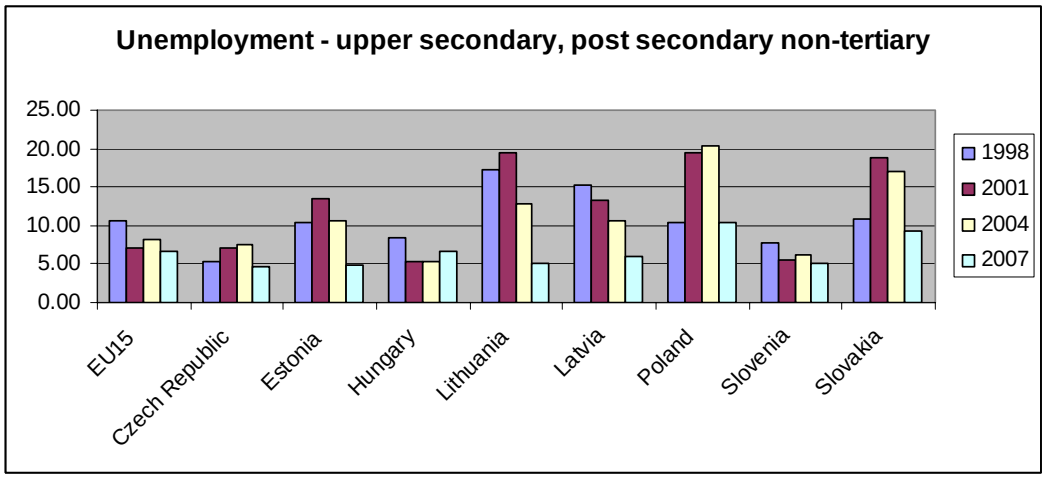
Source: Eurostat

Figure A3

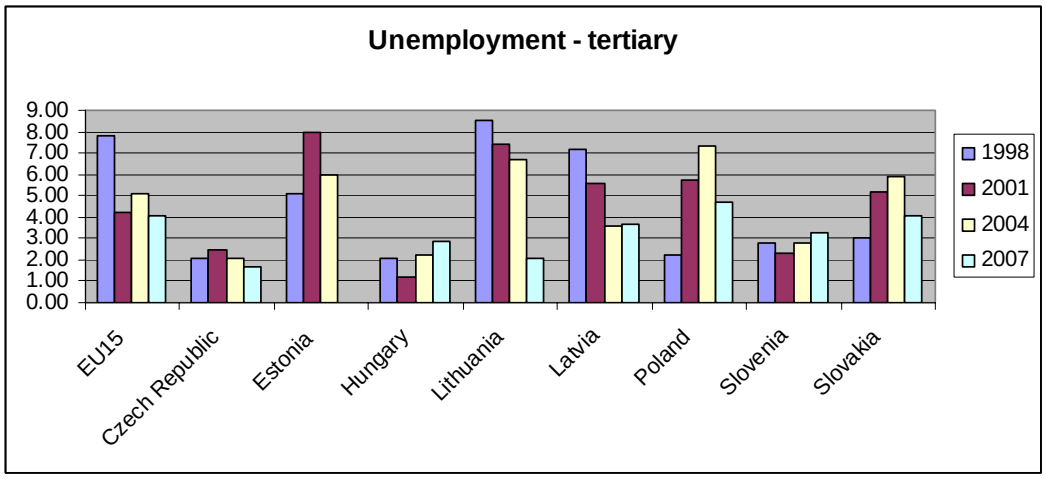
Panel A



Panel B



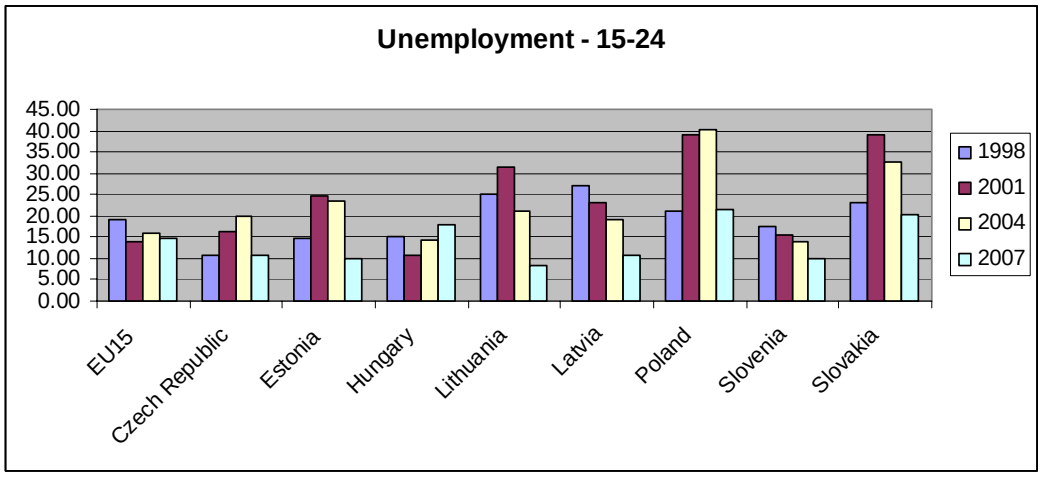
Panel C



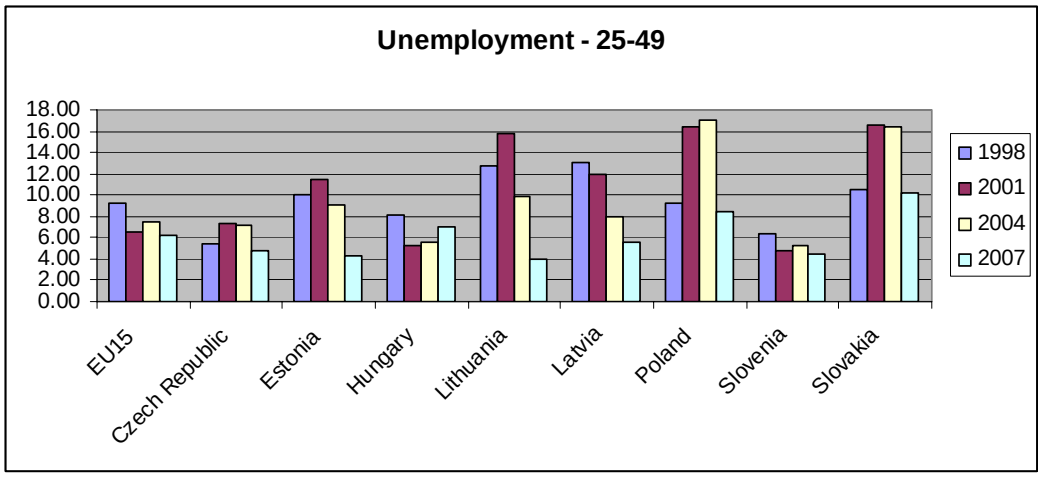
Source: Eurostat

Figure A4

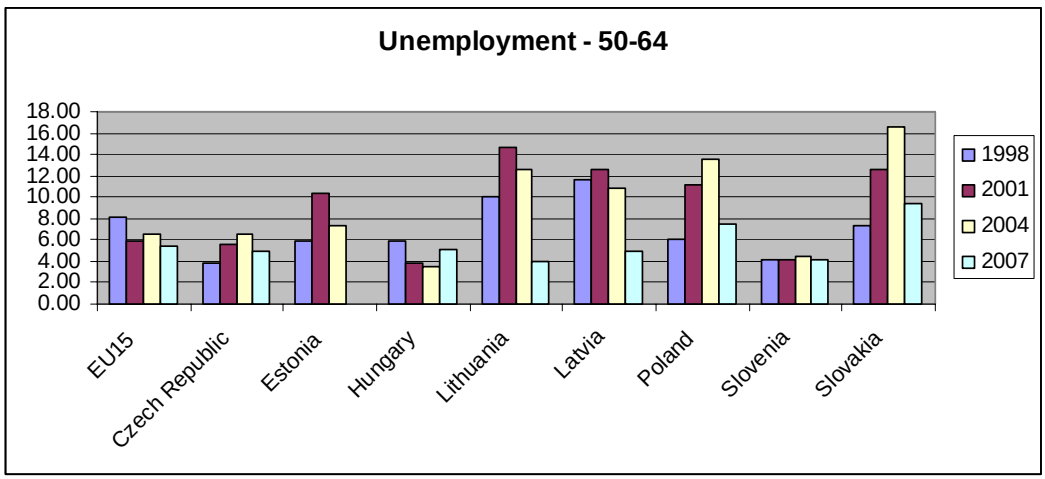
Panel A



Panel B



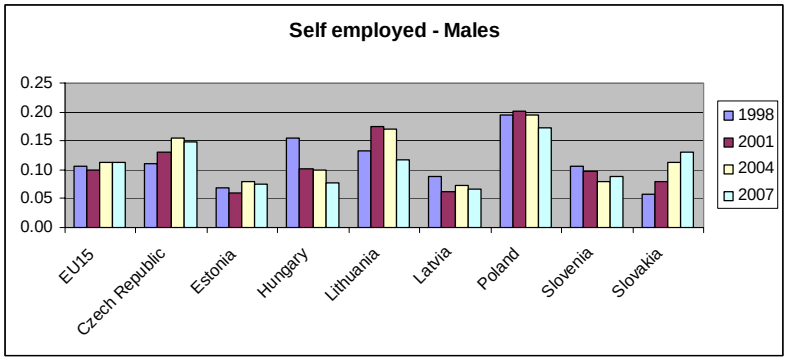
Panel C



Source: Eurostat

Figure A5 Self-employment by gender

Panel A



Panel B

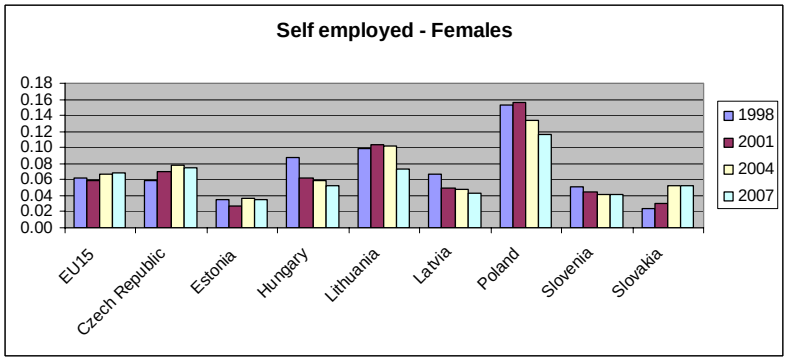
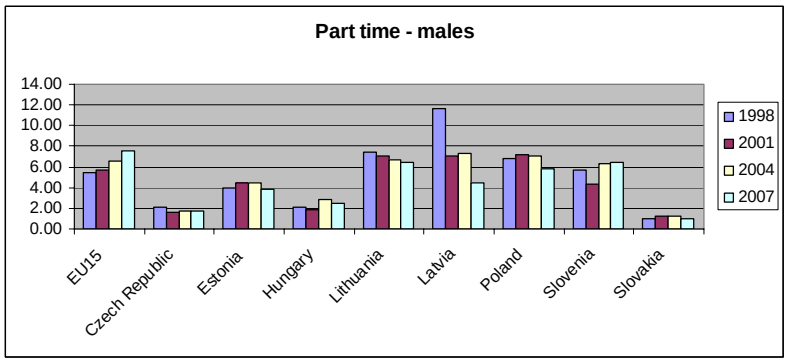
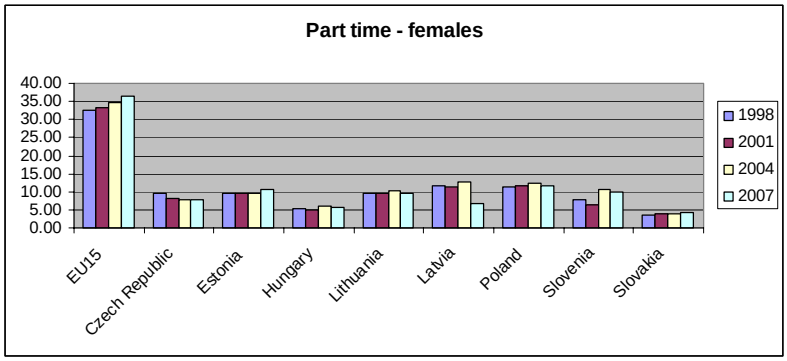


Figure A6 Part-time employment by gender

Panel A



Panel B



Source: Eurostat.

APPENDIX – TABLES

Table A1. Gross Job Flows: EU8+2 & Macedonia

1999

Country	JCR	JDR	JGR	JRR	EJRR
Bul	0,107	0,140	-0,034	0,247	0,213
Cze	0,080	0,090	-0,010	0,170	0,160
Est	0,040	0,137	-0,098	0,177	0,079
Hun	0,018	0,122	-0,104	0,140	0,036
Lat	0,172	0,143	0,029	0,314	0,285
Lit	0,069	0,148	-0,079	0,217	0,138
Mac	*0,027*	*0,047*	*-0,020*	*0,073*	*0,054*
Pol	0,066	0,181	-0,115	0,247	0,132
Rom	0,029	0,163	-0,135	0,192	0,057
Slk	0,017	0,092	-0,075	0,109	0,035
Sln	0,050	0,098	-0,048	0,148	0,100

2002

Country	JCR	JDR	JGR	JRR	EJRR
Bul	0,110	0,085	0,025	0,195	0,170
Cze	0,073	0,058	0,015	0,131	0,116
Est	0,040	0,171	-0,131	0,211	0,080
Hun	0,085	0,066	0,019	0,151	0,132
Lat	0,072	0,090	-0,018	0,161	0,143
Lit	0,095	0,095	0,000	0,191	0,190
Mac	*0,019*	*0,084*	*-0,065*	*0,102*	*0,038*
Pol	0,093	0,153	-0,059	0,246	0,187
Rom	0,101	0,124	-0,023	0,225	0,202
Slk	0,037	0,090	-0,053	0,127	0,075
Sln	0,082	0,059	0,024	0,141	0,117

2005

Country	JCR	JDR	JGR	JRR	EJRR
Bul	0,084	0,108	-0,025	0,192	0,167
Cze	0,054	0,138	-0,085	0,192	0,107
Est	0,067	0,084	-0,017	0,151	0,135
Hun	0,151	0,095	0,056	0,245	0,190
Lat	0,094	0,059	0,034	0,153	0,119
Lit	0,187	0,091	0,096	0,279	0,183
Mac	*0,034*	*0,137*	*-0,103*	*0,170*	*0,067*
Pol	0,092	0,123	-0,031	0,215	0,184
Rom	0,107	0,150	-0,043	0,257	0,214
Slk	0,033	0,125	-0,091	0,158	0,066
Sln	0,094	0,101	-0,007	0,195	0,188

Notes: three yearly job flow rates. JCR = job creation rate; JDR = job destruction rate; JGR = job growth rate; JRR = job reallocation rate; EJRR = excess job reallocation rate.
Source: Business Environment and Enterprise Performance Survey (BEEPS) data set.

Table A2. Probit Model: Employment vs Not-Employment Macedonia, 2007 LFS

Probit Regression, Marginal Effects: Dependent Variable Employed (1) vs Unemployed (0)				
	(1) Base Regression	(2) Base Regression (Weighted)	(3) Control: Status yr-ago	(4) Control: Status yr-ago (Weighted)
Female Dummy	-0.048***	-0.050***	-0.018	-0.019
	(0.010)	(0.011)	(0.011)	(0.013)
Married Dummy	-0.035**	-0.034*	-0.011	-0.009
	(0.017)	(0.018)	(0.021)	(0.022)
Age	0.021***	0.022***	0.001	0.002
	(0.002)	(0.002)	(0.002)	(0.002)
Age squared	-0.000***	-0.000***	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Secondary 2-3 Yrs.	0.018*	0.026***	0.021*	0.019
	(0.009)	(0.010)	(0.011)	(0.011)
Secondary 2-3 Yrs.	0.097***	0.116***	0.058***	0.067***
	(0.007)	(0.007)	(0.008)	(0.008)
Higher	0.159***	0.172***	0.091***	0.101***
	(0.013)	(0.013)	(0.017)	(0.015)
University	0.202***	0.216***	0.135***	0.142***
	(0.008)	(0.008)	(0.009)	(0.010)
Observations	26763	26763	26760	26760
Pseudo R2	0.0529	0.0554	0.569	0.561

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1. Marginal effects reported. Columns 2 and 4 are weighted regressions. All regressions control for HH relationship. Columns 3 and 4 control for status an year ago, retrospective question (2006).

Table A3. Employment protection legislation (OECD methodology)

A.EPL – regular contracts

Country	*end 90s*	*2002*	*2003*	*2004*
Czech Republic	3	2.8	3.3	3.3
Estonia	2.9	3.1	3.1	2.7
Latvia	-	-	2.3	-
Lithuania	-	-	3	2.9
Hungary	2.1	2.1	1.9	2.2
Poland	2.3	2.2	2.2	2
Slovakia	2.6	2.6	3.5	2.7
Slovenia	3.4	3.4	2.9	2.7
EU-15*	2.6	-	2.3	-

B.EPL – temporary contracts

Country	*end 90s*	*2002*	*2003*	*2004*
Czech Republic	0.5	0.5	0.5	0.5
Estonia	1.7	1.4	1.4	1.3
Latvia	-	-	2.1	-
Lithuania	-	-	1.4	2.4
Hungary	1.2	0.6	1.1	0.4
Poland	1.4	1	1.3	2
Slovakia	2	1.4	0.4	0.3
Slovenia	2.7	2.4	0.6	2.3
EU-15*	2.3	-	2	-

C.EPL – collective dismissals

Country	*end 90s*	*2002*	*2003*	*2004*
Czech Republic	3.2	4.3	2.1	2.6
Estonia	2.9	4.1	4.5	4
Latvia	-	-	4	-
Lithuania	-	-	4.9	3.6
Hungary	2.5	3.4	2.9	3.4
Poland	2.7	3.9	4.1	3.5
Slovakia	2.4	4.4	2.5	3
Slovenia	4.5	4.8	4.9	3.3
EU-15*	3.2	-	3.4	-

Source: Tonin (2005) for 2004 data, OECD and Eamets and Masso (2004) for 2003, Romth and Festic (2008) for other years.
**EU-15 without Luxembourg*

Table A4. Wages by Sectors – Hungary*

Sectors	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Agriculture	76.8	74.9	73.7	72.0	69.3	67.6	69.6	68.8	65.1	66.6	67.7	65.4
Mining & quarrying	130.5	128.3	134.4	125.4	124.1	128.8	122.9	113.2	108.7	111.3	117.9	113.8
Manufacturing	99.7	100.7	100.6	99.1	98.9	100.6	97.7	92.8	90.4	93.7	93.2	92.7
Electricity, gas and water supply	130.6	133.5	132.2	133.3	135.4	136.4	131.0	126.9	127.0	132.1	142.9	132.4
Construction	83.7	82.0	81.9	79.9	73.5	73.3	77.0	70.4	68.4	68.5	69.2	68.6
Wholesale and retail trade	93.3	97.1	93.8	92.5	86.7	88.7	87.5	87.0	84.2	83.9	81.7	84.8
Hotel and restaurants	75.5	75.3	71.6	68.5	64.9	64.6	65.8	66.2	63.8	61.9	58.9	60.1
Transport	106.5	110.0	110.5	112.3	114.3	112.7	110.5	106.6	103.9	108.4	109.0	107.4
Financial intermediation	183.0	189.5	199.2	210.2	214.2	216.1	208.6	197.0	199.6	222.6	230.4	235.8
Real estate	107.2	110.5	106.8	119.7	115.8	115.3	117.6	109.2	105.8	106.0	103.8	100.4
Public administration	117.9	114.3	114.1	111.7	120.3	118.0	127.2	137.1	131.8	126.7	130.2	130.2
Education	89.6	83.3	86.4	88.3	94.4	92.7	94.3	105.1	118.4	110.2	109.1	111.6
Health	83.4	80.1	79.2	77.9	76.6	77.9	76.1	84.3	94.7	90.2	85.5	88.7
Other service activities	102.5	102.2	95.2	94.3	92.2	91.1	88.5	91.1	94.2	94.6	95.0	91.7

**National Average = 100*
Source: Fazekas et al. (2008)

Table A5. Wages by Sectors - Macedonia*

Sectors	2002	2004	2006
Agriculture	83.6	78.8	76.9
Fishing	70.5	83.5	95.5
Mining & quarrying	113.8	112.5	118.4
Manufacturing	88.2	85.3	78.6
Electricity, gas and water supply	129.3	125.4	143.3
Construction	73.7	76.1	73.3
Wholesale and retail trade	95.4	99.9	98.6
Hotel and restaurants	78.3	84.8	82.9
Transport	126.8	123.0	125.1
Financial intermediation	197.5	205.1	196.6
Real estate	121.7	109.3	101.4
Public administration	102.9	110.9	118.6
Education	96.1	94.4	92.0
Health	97.7	98.0	92.6
Other service activities	104.1	99.3	93.7

**National Average = 100*
Source: Statistical Yearbook of the Republic of Macedonia 2004 and 2007, chapter 7.

Table A6. Evolution of dispersion of wages by gender: France, Hungary, Poland and United States

		Males							
Time		1992	1994	1996	1998	2000	2002	2004	2006
Country									
France	Low Pay Incidence*	..	..	..	..	..	..	..	..
	Decile 5/Decile 1	1,6	1,6	1,6	1,6	1,5	1,5	1,5	..
	Decile 9/Decile 1	3,4	3,3	3,3	3,3	3,2	3,1	3,1	..
	Decile 9/Decile 5	2,1	2,1	2,1	2,1	2,1	2,1	2,1	..
Hungary	Low Pay Incidence*	14,1	16,1	15,6	18,1	20,4	20,4	23,1	24,7
	Decile 5/Decile 1	1,8	1,9	1,9	2,0	2,2	1,8	2,1	2,0
	Decile 9/Decile 1	3,6	4,0	4,0	4,5	5,3	4,6	5,3	5,3
	Decile 9/Decile 5	2,0	2,1	2,1	2,3	2,4	2,5	2,6	2,6
Poland	Low Pay Incidence*	10,2	13,5	14,2	14,6	..	19,8	20,9	..
	Decile 5/Decile 1	1,6	1,8	1,9	1,9	..	2,1	2,0	..
	Decile 9/Decile 1	3,0	3,7	3,8	3,7	..	4,4	4,6	..
	Decile 9/Decile 5	1,8	2,0	2,0	2,0	..	2,2	2,3	..
United States	Low Pay Incidence*	17,9	19,9	19,8	19,3	19,3	18,8	19,5	19,9
	Decile 5/Decile 1	2,2	2,2	2,2	2,1	2,2	2,2	2,2	2,2
	Decile 9/Decile 1	4,6	4,7	4,7	4,6	4,8	4,9	5,1	5,1
	Decile 9/Decile 5	2,1	2,1	2,1	2,2	2,2	2,3	2,3	2,4
		Females							
Time		1992	1994	1996	1998	2000	2002	2004	2006
Country									
France	Low Pay Incidence*	..	..	..	..	..	..	..	..
	Decile 5/Decile 1	1,7	1,6	1,6	1,6	1,5	1,4	1,4	..
	Decile 9/Decile 1	2,9	2,7	2,7	2,7	2,6	2,6	2,6	..
	Decile 9/Decile 5	1,7	1,7	1,7	1,7	1,8	1,8	1,8	..
Hungary	Low Pay Incidence*	25,2	25,6	26,5	25,9	26,5	23,0	22,8	21,6
	Decile 5/Decile 1	1,7	1,8	1,8	1,8	1,9	1,7	1,9	1,9

	Decile 9/Decile 1	3,3	3,6	3,7	3,7	4,0	3,6	4,1	3,9
	Decile 9/Decile 5	1,9	2,0	2,0	2,0	2,1	2,2	2,2	2,1
Poland	Low Pay Incidence*	19,4	22,2	22,7	23,0	..	24,5	26,2	..
	Decile 5/Decile 1	1,6	1,6	1,6	1,7	..	1,9	1,9	..
	Decile 9/Decile 1	2,5	2,8	2,9	3,1	..	3,6	3,8	..
	Decile 9/Decile 5	1,6	1,7	1,8	1,9	..	1,9	2,0	..
United States	Low Pay Incidence*	30,1	32,0	32,2	31,5	31,7	29,6	29,5	29,7
	Decile 5/Decile 1	2,1	2,1	2,1	2,0	2,1	2,1	2,1	2,1
	Decile 9/Decile 1	4,4	4,5	4,6	4,5	4,5	4,7	4,8	4,8
	Decile 9/Decile 5	2,1	2,2	2,2	2,2	2,2	2,3	2,3	2,3

*Source: OECD. *Less than two-thirds of median earnings of all workers.*

Table A7. Mincer Equation for Macedonia 2007: OLS estimation

	Dependent Variable: Log Hourly earnings 2007								
	Tenure for Declaring Individuals			Tenure Imputed if non-declaring			Ten. Imputed + Interaction Dummy		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Pooled sample	Male Subsample	Female Subsample	Pooled sample	Male Subsample	Female Subsample	Pooled sample	Male Subsample	Female Subsample
Female Dummy	-0.134***			-0.144***			-0.144***		
	(0.033)			(0.037)			(0.037)		
Age	0.006	0.013**	-0.015*	0.002	0.002	0.002	0.002	0.002	0.002
	(0.006)	(0.006)	(0.007)	(0.005)	(0.006)	(0.007)	(0.005)	(0.006)	(0.007)
Age squared	-0.000	-0.000*	0.000*	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Secondary 2-3 Years	0.013	-0.067	0.113***	0.079***	0.046**	0.127***	0.079***	0.046**	0.128***
	(0.055)	(0.066)	(0.025)	(0.019)	(0.019)	(0.020)	(0.019)	(0.019)	(0.021)
Secondary 4 Years	0.068*	0.000	0.140***	0.193***	0.158***	0.236***	0.194***	0.158***	0.236***
	(0.038)	(0.048)	(0.034)	(0.027)	(0.024)	(0.051)	(0.027)	(0.024)	(0.052)
Higher	0.219***	0.143*	0.221**	0.355***	0.301***	0.407***	0.356***	0.301***	0.407***
	(0.060)	(0.080)	(0.101)	(0.063)	(0.063)	(0.080)	(0.063)	(0.062)	(0.080)
University	0.466***	0.347***	0.596***	0.601***	0.534***	0.672***	0.602***	0.534***	0.673***
	(0.075)	(0.071)	(0.060)	(0.036)	(0.043)	(0.042)	(0.036)	(0.043)	(0.042)
Tenure	0.024**	0.038**	0.008	0.003***	0.003**	0.004***	0.004***	0.003**	0.004***
	(0.011)	(0.018)	(0.022)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Tenure squared	-0.002	-0.003*	0.000	-0.000**	-0.000**	-0.000**	-0.000***	-0.000*	-0.000***
	(0.001)	(0.002)	(0.003)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
DUM_X_tenure							0.003	0.004	0.002

							(0.009)	(0.010)	(0.021)
DUM_X_tenure squared							0.000	-0.000	0.000
							(0.001)	(0.001)	(0.003)
Permanent Job Dummy	0.063***	0.090***	0.049*	0.036	0.041	0.051*	0.035	0.041	0.048*
	(0.016)	(0.023)	(0.026)	(0.026)	(0.036)	(0.026)	(0.027)	(0.036)	(0.027)
Private Ownership Dummy	-0.059	-0.002	-0.158***	0.005	0.030	-0.033*	0.005	0.029	-0.033*
	(0.037)	(0.037)	(0.045)	(0.032)	(0.045)	(0.018)	(0.032)	(0.045)	(0.018)
Fishing	-	-	-	0.372***	0.370***	0.000	0.372***	0.370***	0.000
				(0.031)	(0.028)	(0.000)	(0.031)	(0.028)	(0.000)
Mining & Quarrying	0.480***	0.441***	0.875***	0.343***	0.360***	0.162***	0.342***	0.359***	0.164***
	(0.029)	(0.025)	(0.074)	(0.010)	(0.011)	(0.028)	(0.012)	(0.011)	(0.029)
Manufacturing	0.153***	0.188***	0.185***	0.055*	0.120***	-0.067**	0.055*	0.120***	-0.067*
	(0.046)	(0.026)	(0.047)	(0.029)	(0.015)	(0.031)	(0.030)	(0.015)	(0.033)
Electricity, Gas and Water	0.440***	0.389***	0.590***	0.478***	0.506***	0.420***	0.478***	0.506***	0.421***
	(0.036)	(0.037)	(0.043)	(0.018)	(0.020)	(0.024)	(0.019)	(0.020)	(0.026)
Construction	0.390***	0.374***	0.295***	0.143***	0.147***	0.089***	0.142***	0.147***	0.088***
	(0.012)	(0.020)	(0.024)	(0.008)	(0.010)	(0.020)	(0.008)	(0.010)	(0.019)
Wholesale and Retail Trade	0.218***	0.189***	0.286***	0.093***	0.124***	-0.004	0.094***	0.124***	-0.004
	(0.021)	(0.025)	(0.018)	(0.024)	(0.027)	(0.017)	(0.024)	(0.027)	(0.017)
Hotel & Restaurant	0.215***	0.169***	0.361***	0.093***	0.101**	0.024	0.091***	0.099**	0.022
	(0.019)	(0.029)	(0.016)	(0.023)	(0.035)	(0.015)	(0.023)	(0.035)	(0.016)
Transport, storage and communication	0.242***	0.181***	0.633***	0.229***	0.218***	0.292***	0.229***	0.217***	0.292***
	(0.013)	(0.022)	(0.025)	(0.011)	(0.010)	(0.028)	(0.011)	(0.010)	(0.029)

Financial Intermediation	0.518***	0.606***	0.443***	0.481***	0.478***	0.406***	0.480***	0.476***	0.405***
	(0.025)	(0.030)	(0.031)	(0.026)	(0.021)	(0.024)	(0.026)	(0.022)	(0.024)
Real estate, renting and business	0.331***	0.390***	0.250***	0.233***	0.208***	0.188***	0.233***	0.208***	0.188***
	(0.020)	(0.023)	(0.048)	(0.021)	(0.023)	(0.017)	(0.021)	(0.023)	(0.017)
Public administration and defence	0.426***	0.479***	0.363***	0.336***	0.379***	0.206***	0.335***	0.379***	0.205***
	(0.047)	(0.053)	(0.037)	(0.033)	(0.035)	(0.023)	(0.033)	(0.035)	(0.023)
Education	0.291***	0.336***	0.238***	0.165***	0.171***	0.060*	0.166***	0.172***	0.060*
	(0.043)	(0.041)	(0.041)	(0.037)	(0.027)	(0.030)	(0.037)	(0.027)	(0.030)
Health and social work	0.279***	0.239***	0.314***	0.195***	0.162***	0.105***	0.194***	0.162***	0.105***
	(0.029)	(0.033)	(0.030)	(0.034)	(0.021)	(0.021)	(0.034)	(0.021)	(0.022)
Other communal activities	0.284***	0.247***	0.378***	0.164***	0.177***	0.092***	0.163***	0.177***	0.090***
	(0.023)	(0.026)	(0.015)	(0.017)	(0.015)	(0.015)	(0.016)	(0.014)	(0.014)
Private household employing	-0.206***	-0.343***	-0.008	0.085**	-0.213***	0.226***	0.086**	-0.204***	0.221***
	(0.034)	(0.055)	(0.078)	(0.035)	(0.049)	(0.029)	(0.035)	(0.047)	(0.029)
Extraterritorial organisations	0.787***	1.021***	0.411***	0.708***	0.973***	-0.124***	0.708***	0.975***	-0.132***
	(0.047)	(0.051)	(0.117)	(0.026)	(0.035)	(0.042)	(0.026)	(0.036)	(0.043)
small (<50)	0.061*	0.072*	0.028	0.054*	0.058	0.049	0.054*	0.059	0.048
	(0.032)	(0.038)	(0.050)	(0.030)	(0.034)	(0.036)	(0.030)	(0.034)	(0.036)
large (50-250)	0.005	0.006	0.019	0.021	0.022	0.034	0.020	0.022	0.032
	(0.051)	(0.057)	(0.063)	(0.033)	(0.030)	(0.043)	(0.034)	(0.030)	(0.043)
very large (> 250)	0.023	0.040	0.009	0.035	0.061	0.028	0.035	0.061	0.028
	(0.061)	(0.050)	(0.090)	(0.047)	(0.042)	(0.057)	(0.047)	(0.042)	(0.057)

Observations	2162	1184	978	8486	4811	3675	8486	4811	3675
R-squared	0.334	0.282	0.388	0.373	0.300	0.458	0.374	0.300	0.458

Robust standard errors in parentheses, clustered at the level of the sector. *** p<0.01, ** p<0.05, * p<0.1 All regressions include relationship to the HH dummies. Omitted categories: Agriculture, Primary education or less, Micro firms (<10). Tenure is compute on quarterly basis. Source: Macedonia LFS 2007.

Table A8. Distribution of Highest Educational Attainment – Macedonia 2007

Males and Females

	Freq.	Percent
Primary or less	1,448	17.06
Secondary 2-3 years	1,114	13.13
Secondary 4 years	4,002	47.16
Higher	498	5.87
University	1,424	16.78

Males

	Freq.	Percent
Primary or less	903	18.77
Secondary 2-3 years	710	14.76
Secondary 4 years	2,224	46.23
Higher	262	5.45
University	712	14.80

Females

	Freq.	Percent
Primary or less	545	14.83
Secondary 2-3 years	404	10.99
Secondary 4 years	1,778	48.38
Higher	236	6.42
University	712	19.37

Source: Macedonian Labor Force Survey 2007

Table A9. Mincer Equation for Poland 2004: OLS estimation

Dependent variable: Log hourly earnings 2004			
	Pooled sample	Male subsample	Female subsample
Female dummy	-0.159***		
	(0.011)		
Age	0.024***	0.025***	0.024***
	(0.003)	(0.004)	(0.005)
Age Square	-0.000***	-0.000***	-0.000***
	(0.000)	(0.000)	(0.000)
University	0.484***	0.346***	0.546***
	(0.033)	(0.028)	(0.039)
Secondary general & Post-secondary	0.127***	0.135***	0.108***
	(0.015)	(0.019)	(0.021)
Secondary Vocational	0.161***	0.162***	0.152***
	(0.019)	(0.027)	(0.024)
Basic Vocational	0.057***	0.055***	0.051***
	(0.012)	(0.016)	(0.018)
Tenure	0.008***	0.008***	0.008***
	(0.002)	(0.002)	(0.002)
Tenure sq	-0.000*	-0.000*	-0.000
	(0.000)	(0.000)	(0.000)
Permanent Pos.	0.119***	0.130***	0.096***
	(0.012)	(0.015)	(0.017)
Legislators, Administrators, Managers, Professionals, Technicians	0.353***	0.408***	0.335***
	(0.020)	(0.026)	(0.025)
Clerks	0.156***	0.147***	0.163***
	(0.020)	(0.030)	(0.025)
Service workers Sales workers	0.059***	0.084***	0.029
	(0.019)	(0.026)	(0.024)
Agricultural workers Fisheries workers	0.175***	0.208***	0.075
	(0.054)	(0.070)	(0.073)
Trade workers	0.135***	0.152***	0.077**
	(0.019)	(0.020)	(0.031)
Plant & Machine Operators Assemblers	0.145***	0.150***	0.144***
	(0.017)	(0.018)	(0.032)
Public Sector	0.041**	0.049***	-0.005
	(0.016)	(0.018)	(0.020)
Agriculture & fishing	-0.122***	-0.127***	-0.065
	(0.027)	(0.028)	(0.051)
Recycling and construction	0.053***	0.047**	0.096*
	(0.019)	(0.019)	(0.050)
Retails , trade & hotels	-0.012	-0.014	-0.003
	(0.018)	(0.020)	(0.028)
Transport	0.056***	0.044**	0.116***
	(0.018)	(0.020)	(0.035)
Financial intermediation	-0.034	-0.064*	-0.004
	(0.023)	(0.033)	(0.030)
Public administration	-0.041	-0.008	-0.044
	(0.025)	(0.030)	(0.035)
Education and health	-0.019	-0.050	0.015
	(0.022)	(0.032)	(0.027)
Firm size:20-50	0.047***	0.038**	0.054***

	(0.012)	(0.016)	(0.017)
Firm size:50-100	0.048***	0.046***	0.058***
	(0.012)	(0.016)	(0.015)
Firm size>100	0.089***	0.157***	0.015
	(0.016)	(0.016)	(0.020)
Regional dummies	Yes	Yes	Yes
Constant	0.692***	0.665***	0.580***
	(0.060)	(0.079)	(0.092)
Observations	8186	4434	3752
R-squared	0.48	0.43	0.55

Robust standard errors in parentheses, clustered at job, sector and regional level
** significant at 10%; ** significant at 5%; *** significant at 1%*
Omitted categories: primary Education; temporary contract; elementary occupations; private sector; mining & manufacturing; firms with less than 20 employees.
Source: Polish Labor Force Survey – November 1994.

Table A10. Distribution of Highest Educational Attainment – Poland 2004

Males and Females

	Freq.	Percent
University	1,551	18.95
Secondary general & Post-secondary	2,498	30.52
Secondary Vocational	592	7.23
Basic Vocational	2,892	35.33
Primary Education and less	653	7.98

Males

	Freq.	Percent
University	578	13.04
Secondary general & Post-secondary	1,182	26.66
Secondary Vocational	196	4.42
Basic Vocational	2,061	46.48
Primary Education	417	9.40

Females

	Freq.	Percent
University	973	25.93
Secondary general & Post-secondary	1,316	35.07
Secondary Vocational	396	10.55
Basic Vocational	831	22.15
Primary Education and less	236	6.29

Source: Polish Labor Force Survey November 2004

Table A11. Shares of Part-Time Workers and Workers in Temporary Employment by Gender (in %)

Year	2006		2007	
Gender	Male	Female	Male	Female
A				
Part-Time Workers	6.40 (2.68)	8.01 (3.82)	7.12 (3.73)	7.81 (3.86)
Temporary Workers	33.13 (17.67)	29.85 (10.48)	13.91 (13.55)	10.43 (10.26)
B				
Part-Time Workers	3.17 (1.85)	3.43 (3.05)	4.13 (2.25)	3.79 (3.04)
Temporary Workers	21.69 (14.75)	10.17 (8.38)	12.93 (12.64)	9.97 (9.78)

Source: Macedonian LFS 2006 and 2007.
Note: A: all workers; B: workers declaring wages. In brackets: excluding agriculture.

Table A12. Part-time and Temporary Employment by Sector (in%)

Year	2006			2007		
Age	Agriculture	Industry	Services	Agriculture	Industry	Services
A						
Part-Time Workers	19.95	1.82	4.00	20.75	2.73	4.46
Temporary Workers	88.17	15.70	14.36	21.38	12.16	12.11
B						
Part-Time Workers	12.43	1.22	3.23	16.43	1.82	3.61
Temporary Workers	72.03	13.36	11.61	19.41	11.24	11.54

Source: Macedonian LFS 2006 and 2007.
Note: A: all workers; B: workers declaring wages.

Table A13. Skills and education of available workers as a constraint of firm growth

	1999	2002	2005
Macedonia		**1.58**	**1.69**
Czech Republic		2.00	2.27
Estonia		2.76	2.01
Hungary		2.08	2.08
Latvia		2.13	2.37
Lithuania		1.82	2.28
Poland		2.14	2.15
Slovakia		1.93	1.78
Slovenia		1.79	1.85
EU-8		**2.08**	**2.10**
Bulgaria		1.82	1.88
Romania		2.00	2.21

Source: Business Environment and Economic Performance Surveys, 1999, 2002, 2005, WB and EBRD.
Notes: The table reports country averages of the answers given by firm managers to the question: "Can you tell me how problematic are these different factors for the operation and growth of your Business?" In the table, we report the answers related to the factor skills shortages, where possible answers are:
1 = No obstacle;
2 = Minor obstacle;
3 = Moderate obstacle;
4 = Major obstacle.