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Assessment of the Labour Market in Serbia

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Acronyms

ALMP	Active labour market policies
BiH	Bosnia and Herzegovina
CEE	Central and Eastern Europe
EBRD	European Bank for Reconstruction and Development
ETF	European Training Foundation
EC	European Community
EU	European Union
FBiH	Federation of Bosnia and Herzegovina
FIC	Foreign Investors Council
FREN	Foundation for the Advancement of Economics
GDP	Gross Domestic Product
HACCT	Hazard Analysis and Critical Control point
IDP	Internally displaced persons
ILO	International Labour Organisation
IMF	International Monetary Fund
IPA	Instrument for Pre-Accession Assistance
IPARD	Instrument for Pre-Accession Assistance for Rural Development
LFS	Labour Force Survey
LSMS	Living Standards Measurement Survey
MoE	Ministry of Education
MoERD	Ministry of Economy and Regional Development
MoSLP	Ministry of Labour and Social Policy
NACE	Nomenclature Statistique des Activités économiques dans la Communauté européenne
NES	National Employment Service (Serbia)
NMS	New EU member states
OECD	Organisation for Economic Cooperation and Development
PES	Public employment service
PPP	Purchasing Power Parity
RSO	Republican Statistical Office
SEE	South Eastern Europe
SNA	Statistics of National Accounts

SPSI	Social Protection and Social Inclusion
UAA	Used Agricultural Area
UNCT	United Nations Country Team
UNDP	United Nations Development Programme
USD	US Dollar
VET	Vocational Education and Training
WBC	Western Balkan countries

Executive summary

Introduction

In the period after the political changes in the year 2000, GDP growth was rather rapid and compares favourably with other transition countries in South Eastern Europe. It was driven mainly by the expansion of services, with industrial production and agriculture basically stagnating over the whole period. The labour market effects were similar to those in other countries going through transition: employment declined in the public sector and increased in the private sector, with the overall number of employed declining and those unemployed increasing, and also with strong increases in the number of pensioners.

This trend started to change in the last couple of years, but the improvement was cut short by the 2008-2009 crisis. Though GDP decline was not as strong as in many other countries, around 3% in 2009, industrial production and especially construction suffered significant losses. Since late 2009 there has been some stabilization, but GDP growth is still projected to reach only 1.5% this year and perhaps accelerate to 3% in 2011. The decline in employment according to LFS data was among the worst in the region (-7%) and continued in 2010.

Employment is not expected to increase; indeed, further decline is expected in both the public and the private sectors in the short run. In addition, strong income effects were the consequence of a rather sharp devaluation at the beginning of the crisis and the continuing depreciation of the currency afterwards and the recent speed up of inflation (expected to reach double digits at the end of 2010 and remain elevated in the short run). Incomes, wages and pensions, are expected to stagnate, and most probably decline in real terms, in the short run as long as the labour market conditions do not improve.

Thus, labour market challenges are rather formidable, especially because the sources of economic growth will have to change. In the medium term, significant restructuring will be needed in order to increase the share of the tradable sector in production and employment. Also, the structure of skills will have to change. On the other hand, relatively low growth rates as the economy adjusts will lead to rather tight labour market conditions.

As a consequence, both labour market policies and the capacity to formulate and implement them will have to be improved and the whole agenda of structural reforms will have to be formulated and implemented. This will have to be done while concurrently pursuing a policy of budget consolidation and fiscal reforms, which will additionally tighten the labour market conditions.

In this study we will examine the overall labour market developments, policies, and capacities to address problems. Problems and deficiencies will be identified and policy recommendations drawn.

Characteristics of the labour market

The Serbian labour market is characterized by low employment and activity rates, particularly for women and young people (Figure 1). This indicates the weaknesses of the secondary educational system in adapting to the needs of the labour market, but also the obsolete skills of the high percentage of long-term unemployed. In general, the educational attainments of the workforce have changed only marginally over recent years.

The crisis had a strong impact on the Serbian labour market, which was reflected in rising unemployment and declining employment rates of young people in particular. At the same time, inactivity increased. The sectors most affected by the crisis were agriculture, trade, construction and manufacturing. The impact of the crisis was highest for workers with low and medium levels of education, while employment of the highly skilled continued to grow.

Figure I

Evolution of employment rates, 2000-2009

employed in % of working-age population 15-64 years

Source: National LFS. For Albania registration data.

Young people are affected disproportionately by unemployment, with even those holding college or university degrees being hit hard. The apprenticeship programme 'First Chance' launched by the government in 2009 in order to combat youth unemployment is showing first positive results: since mid-2009 the number of young people registered at labour offices has been on the decrease.

Other groups heavily affected by unemployment are internally displaced persons, ethnic minorities (Roma women in particular) and refugees.

Regional disparities widened during transition. Central Serbia, where many jobs were lost in manufacturing in the course of restructuring, has been hardest hit by unemployment, exhibiting the highest share of long-term unemployment and heavily affected by youth unemployment, while the capital city of Belgrade is best positioned (Table 1).

Table I

Unemployment by region

Year	Central Serbia without Belgrade	Belgrade	Vojvodina
2009	18.2	13.5	17.3
2008	14.7	13.9	14.2
2007	20.3	14.4	19.5
2006	25.0	17.4	18.4
2005	23.3	20.4	20.3
2004	20.5	17.6	19.3

Source: Own calculation based on RSO data, LFS 2004-2009.

Labour mobility, as everywhere in Europe, is very low in Serbia. By contrast, Serbia's (outward) migration is very high and remittances constitute an important share of income. Brain drain has become an important issue in recent years though it is hardly a new phenomenon. However, for highly educated people, the relevant labour market is the world labour market.

Informal sector employment, which has been traditionally high in Serbia, even increased during the past decade, with a rising share of older workers, better educated persons with secondary education or more, self-employed persons and unpaid family workers. However, the current crisis has taken a toll on the employment in the informal sector too. There has been a marked decline in the number of self-employed persons, which is where most informally employed people are to be found. There is no reliable information on the effects on other types of informal activities, but chances are that those have been hit by the crisis too as they are even more dependent on the developments in the formal economy.

By contrast, some reversal in the relationship between wages and productivity should have taken place. In the pre-crisis years, wages started to increase faster than productivity especially in the public sector. The crisis changed that as employment declined stronger than economic activity and wages stagnated or even declined in real terms. That has led to an improvement in overall competitiveness of the economy and of the labour intensive industries and services too. This should have positive effects on the labour market developments once recovery strengthens and investments increase.

Labour market policies

Serbia has not relied on consistent labour market policies to address the low level of employment and high level of unemployment. Some changes are being introduced in the crisis and post crisis periods, but the effects are uncertain and are yet to be determined in any case.

Although spending on passive and active labour market policy measures in Serbia has been growing in the past couple of years, it is still low compared to the EU average but higher than in most other Western Balkan countries. The lion's share of the available budget is spent on passive measures.

Table II

Public spending on active and passive measures as % of the GDP

	2004	2005	2006	2007	2008	2009[1]	2010[1]
Active measures	0.03	0.09	0.08	0.10	0.11	0.11	0.12[2]
Unemployment benefits, gross	0.83	0.75	0.81	0.78	0.72	0.77	0.89[2]
Passive measures, gross	0.91	0.85	0.90	0.95	0.99	0.98	1.16[2]
Labour market policies, total	0.94	0.95	0.98	1.06	1.10	1.10	1.27[2]

1) Shares of active policies in the GDP are calculated according to GDP forecasts for 2009 and 2010 (Government of the Republic of Serbia, Ministry of Finance, 2010). – 2) Own calculation based on the NES plan of expenditures on labour market measures for 2010 (National Employment Service Informer, March 2010).

Source: Own calculations based on NES data, Business Reports 2004-2009.

The coverage of unemployment benefit recipients is very low (11%) because of the high percentage of long-term unemployed as well as young first-time job seekers who are not entitled to unemployment benefits. In general, due to budgetary reasons, there is a delay of about 4 months before payment of unemployment benefits begins. Today, benefit recipients are mainly those who have lost their jobs due to the termination of their contracts, while at the beginning of the new millennium the major part of recipients was accounted for by those who became jobless in the course of privatization and restructuring.

Participation in active labour market programmes (ALMP) has increased over time and also the realization of planned policy measures has significantly improved. This means that the average job placement rate six months after participation in a particular measure or programme is one third for all observed measures and programmes, but differs widely across them: e.g. the job placement rate is ranging between 70% for programmes of self employment and 36% for the financial support of apprentices. Further planning of the implementation of active labour market measures would be ameliorated by the development of a system of monitoring and evaluation that would enable net impact assessment of active labour market measures. Females are overrepresented in the programmes of addi-

tional education and training, while men account for a higher share than women in the programmes supporting entrepreneurship and providing subsidies for the creation of new jobs.

An important step in order to improve the efficiency of labour market policy measures was made in 2007, when the administration of health insurance was separated from the NES which absorbed much time and efforts in the past.

In 2010, the priorities of the labour market policy in Serbia were determined by the National Action Plan for 2010. The labour market policy for 2010 rests on three main pillars:

- *(i) new job openings, decreasing the effects of the economic crisis on current jobs and increasing formal employment;*
- *(ii) improvement of social inclusion and equal access to the labour market; and*
- *(iii) development of human resources.*

Within the first group of policy priorities, emphasis was given to the fostering of employment and the prevention of unemployment, the employment of young people, strengthening the capacities of the labour market institutions, the role of social partners and regional collaboration of countries, and supporting the reduction of regional differences.

Within the second group of priorities, two subsets of policies were distinguished through the implementation of support measures to achieve the equal status of women and men on the labour market on the one hand and social inclusion and employment of persons with disabilities and other vulnerable groups (refugees and IDPs, minorities, beneficiaries of social assistance and the like) on the other hand.

The third set of policies entitled 'development of human resources' incorporated the organization training programmes for the unemployed in order to fill short-term labour market needs, the promotion of LLL, the enhancement of institutional capacities and the like. The priorities of labour market policy for 2010 were implemented in concrete labour market measures supported by a budget of about RSD 10 billion (MoERD, 2010).

Besides policies envisaged to foster the employment of young people and persons with disabilities, there are policies that make the equality of genders a priority, that is, with the objective of having women constitute at least half of the users of active labour market measures. Direct support for the higher employment of women is provided by fostering women's entrepreneurship and self-employment, fostering unemployed women who are in the category of women with difficulties in finding employment (such as young women, uneducated women, women with disabilities, Roma women, women victims of trafficking and the like) and by promoting flexible forms of employment that will facilitate the harmonization of business and family life (time sharing between job and family obligations) and creating possibilities for better social inclusion of unemployed women. Implementation of these poli-

cies will be continued in 2011 as well (MoERD, National AP of Employment for 2011, 2010).

In 2011 the Serbian government will introduce the new Employment Strategy for the period 2011-2020. The priorities set in the draft strategy include supporting the model of new economic growth of the national economy, supporting the labour force in the economic sectors with unfavourable perspectives, increasing the employability of vulnerable groups and strengthening the institutional framework in order to decrease differences in the labour market indicators between Serbia and EU. The new strategy particularly emphasizes the implementation of active labour market policies, as opposed to passive policies, through higher expenditures for active labour market measures, better targeting of potential beneficiaries and the fostering of programmes of additional education and training. Parallel to the strengthening of active labour market policies, emphasis will be given to education in order to improve the labour force supply. This is particularly important because of the forecasted decrease in the labour force until the end of 2020

The government has announced a ten-year plan, Serbia 2020, which is to be closely connected with the EU programme Europe 2020. Within that framework, structural reforms will be considered which are to be coordinated with the EU as the accession process progresses. The proposed programme, which was recently released, calls for significant growth in employment over the next decade – an additional 400,000 new jobs are to be created. This is presumed mainly on the basis of strong GDP growth fuelled by growing investments and exports. Although the programme assumes a speed-up in the process of EU integration, it is not all that specific when it comes to labour market policies. Important reforms of the tax code are envisaged, mainly with the aim of reducing the tax burden on labour. There are calls for pension reforms and education reforms. Also, active labour market policies are to be relied on more than before. The programme lacks specifics and thus could benefit from policy dialogue with the EU in order to elaborate a more strategic approach to labour market policies.

Assessment of policies and recommendations

The overall developments on the Serbian labour market are not substantially different from the pattern observed in most transition countries and especially those in the Balkans. Most employment and unemployment problems are structural rather than cyclical. Low level of employment, high level of unemployment, especially among the young and the old, and high rate of inactivity are all connected with the structural changes in the economy that is connected with the transition from mainly public to private sector employment and with the rising emphasis on productivity and efficiency.

Labour market policies adopted and followed during the process of transition, however, were mostly designed as if labour market problems were cyclical rather than structural.

That accounts for the prevalence of passive as compared to active labour market policies. Even the passive measures were inadequate because they consisted in large part of early retirement and of unemployment and some social benefits. The benign view of the expansion of informal economy can also be seen as a type of a passive labour market policy as it amounted to a type of employment subsidy to those that were self-employed or were partly formally and partly informally employed (part of the wages being reported and part being paid in cash).

Even these passive labour market polices have not been all that generous, with the exception of early retirement. The latter has created a huge problem in the pension fund and has distorted the labour market and the incentives for work significantly. Increasingly this is emerging as a looming social problem and also as a problem for fiscal policies and more specifically for policies of taxation.

The government is contemplating a tax reform that should rebalance the tax burden on labour with that on consumption. This tax reform has been put on hold for the moment because of the possible short term negative effects it might have on consumption and on fiscal balances in the aftermath of the crisis. However, there is recognition that the tax wedge on labour is having a negative effect on both wages and on employment. The problem is that the possibilities to reduce public expenditures are limited without significant reform of the pension system. As a consequence, the eventual effects of the tax reform are most probably going to be rather limited in the short run.

Though labour market problems are mostly structural, some of the effects of the current crisis are clearly cyclical. The government has made an effort to support aggregate demand with increased deficit spending, but the possibilities are limited. Also, some of the programmes for increased infrastructure investments have been slow in implementation. Therefore, strong decline in employment, especially in construction and in services, have not been addressed properly. In the short run, fiscal adjustment and consolidation is going to be necessary, so there are significant limitation to relying on countercyclical policies with the aim to supporting employment generation.

Similarly, some attempt has been made to subsidize employment of the young and also to prevent further lay-offs, but this are temporary programmes and cannot be seen as providing for sustained improvement in the labour market conditions. In the same way the existing programmes that subsidize foreign investments with wages paid from the budget cannot be expected to lead to significant improvements in the bleak labour market picture.

In general, countercyclical labour market policies have mainly been limited in scope and though in some cases temporarily successful those have not changed the overall picture of the labour market structure and development.

Current programmes for future labour market policies clearly recognize the structural character of the low employment and high unemployment and inactivity picture. There is a general shift towards active labour market policies and also towards a strategy of development that combines these policies with various structural reforms not only in the labour markets but in the product markets and in education and other areas. These programmes are well designed in general. They are, however, strong on aims and rather weak on instruments. In other words, the recognition of what should be done is rather clear, but that cannot be claimed when it comes to the question on how that should be done?

There is an emphasis on the reform of education in order to improve the supply of skills and meet the expected increased demand for employment in industry and in the tradable sector in general. In addition, there is some emphasis on higher investments in science and innovation as the current resources devoted on those are extremely limited. It is, however, not clear where the money will come from and also how are the necessary reforms to be implemented. In the current state of affairs, more investment in skills is like more investment in brain drain.

There is also an emphasis on retraining, but it is not altogether clear how that is to be organized and what are the incentives for participation in these programmes. The experience so far, albeit admittedly a limited one, is not altogether encouraging. Public programmes for training and retraining are not all that efficient while there has been limited public-private partnership in this respect. The major incentive for people to participate in these programmes is the anticipation of employment once the programme is completed successfully. Thus, it might be a good idea to support programmes of training or retraining on the job run by the entrepreneurs looking for specific skills. That would help both the discovery of skills needed and the matching problem between labour demand and supply.

Such programmes are also conducive to positive discrimination schemes, i.e. to support for the activation of vulnerable or disadvantaged groups. Given that these is a significant problem in a depressed labour market, active labour market policies exercised and implement through the cooperation between the state institutions and the private sector could target the improvement of employment prospects for various groups that are discriminated against by the markets or by the predominant social structures.

These considerations lead to the assessment of the needed reforms in the institutional set up both in the government and in the administration. There are a number of deficiencies in the current set up. Three may be the more important ones.

First, there is too much dispersion between various ministries when it comes to labour market policies – both in terms of setting up the policies and in their implementation. This is the consequence of politics rather than policy. Given that the state of the labour market is

of critical importance for development and stability, it would be better to have one strong ministry for labour and employment policies with enough capacity to set up and implement policies targeting all aspects of labour market problems.

Second, there is a need to strengthen the National Employment Service and various other supporting agencies. If active labour market policies should strengthen, the implementing institutions should be capable of facilitating the search and matching problem. That would require a significant improvement in their capacities and responsibilities. They should be entrusted to look for innovative solutions to various active labour market schemes and programmes.

Third, there is a need to increase both the staff and the budget of the institutions designing and implementing various labour market policies and programmes. As the main labour market problems are structural, the policies that address them need to be coordinated with other structural reforms in the area of education, pension reform, product market reforms, and overall industrial policy. This requires a better staff and better financing. For labour policy to be more active, the activities of the facilitating institutions have to be increased.

Conclusion

Transition and the current crisis have led to the development of significant structural problems in the labour markets in Serbia. The policies so far have been inadequate as they have been targeting cyclical rather than structural problems. This needs to be changed in the future with significant improvements in the policy design and the institutional support for implementation.

Keywords: *labour market, wage developments, skill mismatch, informal economy, labour market policies*

JEL classification: *J08, J21, J24, J31, J43, J64*

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Introduction

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Employment is not expected to increase; indeed, further decline is expected in both the public and the private sectors in the short run. In addition, strong income effects were the consequence of a rather sharp devaluation at the beginning of the crisis and the continuing depreciation of the currency afterwards.

Thus, labour market challenges are rather formidable, especially because the sources of economic growth will have to change. In the medium term, significant restructuring will be needed in order to increase the share of the tradable sector in production and employment. Also, the structure of skills will have to change. On the other hand, relatively low growth rates as the economy adjusts will lead to rather tight labour market conditions. As a consequence, both labour market policies and the capacity to formulate and implement them will have to be improved and the whole agenda of structural reforms will have to be formulated and implemented. This will have to be done while concurrently pursuing a policy of budget consolidation and fiscal reforms, which will additionally tighten the labour market conditions.

In this study we will examine the overall labour market developments, policies, and capacities to address problems. Problems and deficiencies will be identified and policy recommendations drawn. Data limitations may, however, impede the analysis of the Serbian labour market and the outcome may be controversial in some cases depending on the data sources used.

1 Analysis of the labour market

1.1 The Serbian labour market – overview

Employment

Despite significant GDP growth during most of the last decade, after the start of transition, employment, according to Labour Force Survey (LFS) data, fell by 15% or 477,000 persons between 2000 and 2009. The decline was mainly a result of restructuring of the socially-owned sectors. The labour market in Serbia is characterized by low employment and activity rates. The employment rate of 50.8% in 2009 is significantly below the EU-15 average, but also below the rates of Croatia and those of the EU members Bulgaria, Romania and Slovenia (Figure 1). Low female employment is one of the factors that impinge markedly on the overall employment rate. For this and other detailed labour market indicators see the tables in the Annex.

Figure 1

Evolution of employment rates, 2000–2009

employed in % of working-age population aged 15-64

Source: National LFS. For Albania registration data.

For young people aged 15-24, the employment rate was only 16.8% in 2009, suffering a substantial drop compared to a year earlier as a result of the economic crisis, which affected young people in particular (Figure 2 gives comparative data for other countries in the region and for the EU). Most of the young people face problems in the school-to-work transition. Only some of them find a permanent job while 'a significant part remains trapped in temporary and low paid jobs from which they find it difficult to exit' (Arandarenko and Krstic, 2008).

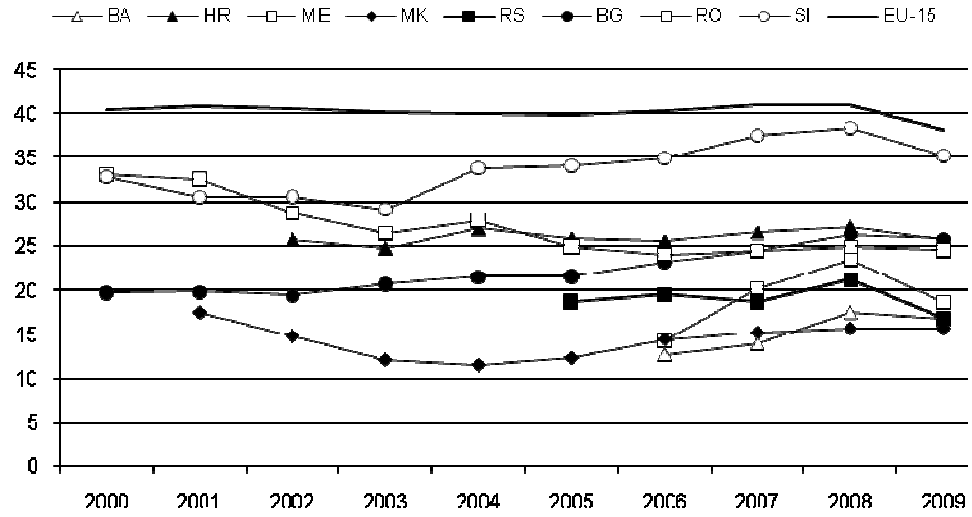
The activity rate of 60.6% in 2009 is also significantly lower than the EU-15 average (Annex Table A5) and only higher than in Bosnia and Herzegovina, Montenegro and Kosovo

under UNSCR 1244/99. Taking the breaks in time series into account, activity rates shrank quite substantially between 2000 and 2009, while employment rates hovered around 50% (with the exception of the 2002–2004 period).

Figure 2

Employment rates of young people, 2000–2009

aged 15-24



Source: Eurostat. National LFS.

The private sector share of GDP has been steadily on the increase over the past few years and accounted for about 60% in 2009. A large part of this share is generated by agriculture, which contributes about one fifth of the country's GDP. Additionally, the changed ownership structure of the industrial and services sectors also contributed to the rising private sector (Table 1).

Table 1

Private sector share in GDP and private sector employment in Serbia

	2004	2005	2006	2007	2008	2009
Private sector share in GDP, in %[1]	n.a.	n.a.	n.a.	55.0	60.0	60.0
Private sector share in employment, without family workers, in %[2]	49.9	52.2	55.4	58.5	62.1	60.6
Men	55.1	58.1	61.4	64.4	69.7	68.0
Women	42.6	43.5	46.7	50.3	52.0	50.8
Private sector share in employment, with family workers, in %[2]	57.1	60.2	62.3	65.3	71.1	69.4
Men	58.4	62.2	65.0	67.5	73.8	72.5
Women	55.3	57.4	58.3	62.2	67.6	65.4

1) EBRD (2009), Transition Report 2009, p. 218. - 2) Population aged 15 years and over.

Source: RSO, LFS 2004-2009.

Between 2004 and 2009 there was a significant shift to the private sector in total employment (Table 2). Excluding family workers who are mainly engaged in agriculture, the percentage of employed persons in the private sector increased by more than 10 percentage points. This trend was driven by faster-growing male employment in the private sector. If family workers are included, the private sector share in total employment reached 70%, with the share of men significantly higher than that of women.

Table 2

Share of economic sectors in total employment in Serbia[1)]

	2004	2005	2006	2007	2008	2009
Agriculture	**24.0**	**23.3**	**20.5**	**20.8**	**25.1**	**23.9**
Men	23.9	23.3	21.5	21.7	24.5	24.6
Women	24.1	23.3	19.2	19.5	26.0	23.0
Industry and Construction	**26.9**	**27.6**	**29.3**	**29.5**	**26.2**	**25.3**
Men	32.9	34.4	36.7	36.5	33.8	32.7
Women	18.5	17.5	18.7	19.6	16.1	15.5
Services	**49.1**	**49.1**	**50.2**	**49.7**	**48.7**	**50.8**
Men	43.1	42.3	41.9	41.7	41.7	42.7
Women	57.3	59.2	62.1	60.9	57.9	61.4

1) Population aged 15 years and over.

Source: RSO, LFS 2004-2009.

Over the period 2004–2009, the services sector recorded a rising share in total employment, absorbing more than half of the Serbian workforce. At the same time, employment in the two other sectors decreased slightly, so that industry and construction and agriculture account for almost the same percentages of total employment.

The women's share in the services sector has been growing over time and is traditionally higher than that of men – whose share stagnated or even decreased between 2004 and 2009. On the other hand, in industry and construction, the employment share of men is much higher than that of women. Up to the year 2007, the employment rates of both men and women recorded an increase, while in 2008 and 2009 employment rates slowly dropped. Opposite movements are perceivable in agriculture. Until 2007, employment of men and women in agriculture was on the decline, but increased again rapidly in 2008.[1] While male employment in agriculture continued to increase in 2009, a portion of the women previously engaged in agriculture moved to the services sector.

The educational attainment of the labour force in Serbia, Table 3, remained at almost the same level over the observed period. According to LFS data, in 2004 the share of em-

[1] The exceptional increase in agricultural employment likely results from a significant methodological change in the Labour Force Survey in 2008: first, there was an expansion of the sample size, and second, since 2008 the LFS has been carried out biannually; previously it was conducted annually.

ployed persons with higher education was 18.6%, secondary education holders accounted for 58% and the remainder of 23.4% consisted of low-skilled labour. In 2009, some shifts occurred in the shares of skilled and unskilled labour: namely, new firms/employers and a general shift towards the services sector demanded skilled and well-educated employees. The share of employed persons with higher education increased to 20.4% and that of those with secondary education to 58.7%, while the share of employed persons with low educational attainment fell to 20.9%. Still, more than one fifth of unskilled employees work mainly in agriculture or are self-employed.

Table 3

Educational attainment by gender and employment status[1)], in %

		Educational attainment					
		No school	Incomplete primary school	Primary	Secondary	College	University and more
2004	**Employed**	**0.8**	**5.7**	**16.9**	**58.0**	**6.9**	**11.7**
	Men	0.6	4.9	17.2	60.9	6.0	10.4
	Women	1.0	6.9	16.6	53.9	8.3	13.4
	Unemployed	**0.6**	**3.0**	**18.4**	**67.2**	**5.6**	**5.2**
	Men	0.4	3.1	16.5	69.7	5.6	4.7
	Women	0.8	3.0	20.0	65.1	5.6	5.5
2005	**Employed**	**0.6**	**4.9**	**17.2**	**59.2**	**6.5**	**11.6**
	Men	0.5	4.1	17.5	61.2	6.2	10.6
	Women	0.8	6.0	16.7	56.2	7.1	13.2
	Unemployed	**0.7**	**3.3**	**16.9**	**68.0**	**5.7**	**5.3**
	Men	0.6	3.2	16.0	70.8	4.9	4.4
	Women	0.8	3.5	17.7	65.6	6.3	6.0
2006	**Employed**	**0.4**	**4.4**	**17.3**	**59.6**	**7.1**	**11.1**
	Men	0.3	4.3	17.5	62.7	6.0	9.3
	Women	0.7	4.7	16.9	55.3	8.8	13.7
	Unemployed	**0.7**	**2.1**	**19.0**	**69.5**	**4.6**	**4.1**
	Men	0.6	2.2	18.6	70.9	4.2	3.5
	Women	0.7	1.9	19.4	68.2	5.0	4.8
2007	**Employed**	**0.4**	**4.1**	**16.7**	**59.4**	**7.0**	**12.4**
	Men	0.3	3.7	18.0	61.6	5.9	10.6
	Women	0.7	4.7	14.8	56.4	8.5	14.9
	Unemployed	**0.9**	**3.0**	**18.3**	**67.5**	**4.2**	**6.0**
	Men	1.2	3.1	17.8	68.6	3.9	5.3
	Women	0.6	2.9	18.8	66.5	4.5	6.7
2008	**Employed**	**0.3**	**4.5**	**17.3**	**58.6**	**12.9**	**6.3**
	Men	0.2	3.7	17.4	63.0	10.6	5.1
	Women	0.5	5.5	17.2	52.8	16.0	7.9
	Unemployed	**0.7**	**2.6**	**17.0**	**68.5**	**8.1**	**3.1**
	Men	0.4	2.0	18.3	66.4	9.3	3.6
	Women	1.0	3.2	15.6	70.7	6.9	2.6
2009	**Employed**	**0.3**	**4.4**	**16.2**	**58.7**	**6.4**	**14.0**
	Men	0.3	3.4	17.0	62.7	5.4	11.2
	Women	0.3	5.7	15.2	53.5	7.7	17.5
	Unemployed	**0.3**	**2.5**	**17.8**	**68.6**	**5.3**	**5.5**
	Men	0.1	2.5	19.0	65.2	6.6	6.7
	Women	0.4	2.5	16.7	71.9	4.1	4.4

1) Population aged 15-64 years.

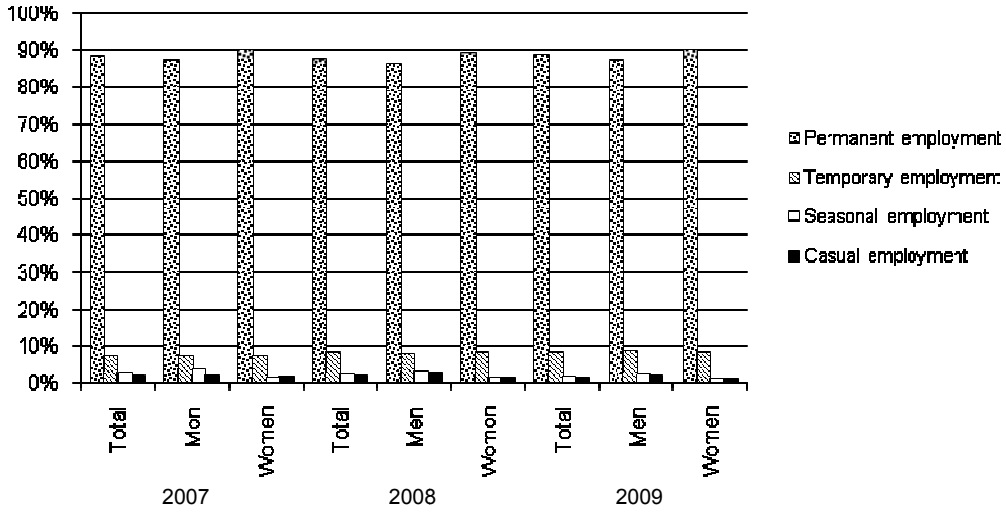
Source: RSO; LFS 2004-2009.

Women account for a higher percentage than men among employed persons with college and university education. According to the 2009 LFS data, one quarter of employed women have college and university education, but only 16.6% of employed men. At the same time, among employed women there is a higher percentage of low-skilled workers with primary education or less (21.2%); the respective share for men is 20.7%. With respect to the total labour force, both men and women with secondary education account for a significant share both in employment and unemployment. That implies a significant skills mismatch on the labour market. The percentage of unemployed men with secondary education decreased slightly during the observed period from 69.7% to 65.2%, while the percentage of unemployed women increased from 65% to almost 72%.

The findings of the OECD report on the investment climate in SEE (OECD, 2010) pointed to a significant gap between skills provided through the education system and additional training and the needs of the labour market. The underdeveloped VET system and slow reforms of the education system in general are the main obstacles to the increased supply of skills demanded by employers.

Figure 3

Structure of the employed by permanency of employment



Source: RSO.

The global crisis of 2007–2009 had a greater effect on the fall of vacancies than on the increase of permanent employment. In particular, temporary employment increased from 7.1% to 8.2%, while other forms of employment (seasonal and casual employment) were severely cut (Figure 3 above). The structures of permanent employment for men and women are different. Among employed women, those with a permanent contract account

for 90%, compared to 88% for men.[2] On the other hand, men often accept seasonal and occasional jobs.

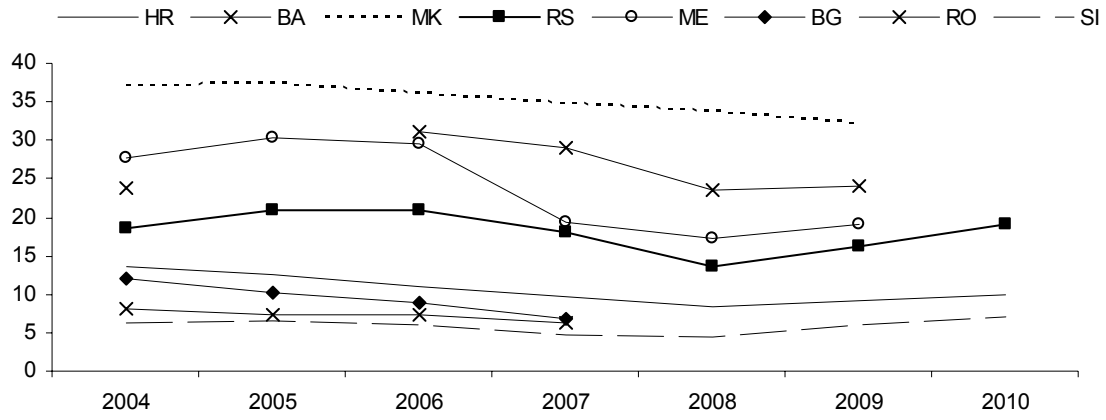
Unemployment

Unemployment has been a serious problem in Serbia for decades. Unlike the situation in other transition countries, where unemployment did not exist under socialism by definition, Serbia, like most of the successor states of former Yugoslavia, entered transition with a considerable level of unemployment (1990: 17%). After a decade of near standstill (armed conflicts and international sanctions), unemployment increased remarkably between 2000 and 2005/2006 as a consequence of the introduction of market-oriented reforms. In 2006 the unemployment rate reached 21%, then fell to 13.5% in 2008, but rose again thereafter, reaching 19.6% in April 2010. Over the period 2000 to 2010 (April), the number of unemployed grew by 147,800 persons. From a comparative perspective, the unemployment rate in Serbia is significantly higher than in the EU-15 or in Bulgaria, Romania and Slovenia, but lower than in Macedonia, Montenegro and Bosnia and Herzegovina (Figure 4). In general, women are more likely to be unemployed than men, despite their better educational levels.

Figure 4

Unemployment in South Eastern Europe

unemployed in % of active population, average



Source: LFS of the respective countries. Albania: registration data.

The educational structure of the unemployed is as unfavourable as that of the employed. In 2004, 22% of the unemployed in Serbia had only primary education or no formal education at all. Unemployed with secondary education accounted for 67.2% of the total unemployed, while those with college and university degrees made up 10.8%. The situation became even worse in 2009, when the share of people with secondary education increased to

[2] Within the period from 2004 to 2006, the share of permanent employment increased in total and by gender. While permanent employment was favoured by women, other forms of contracts were not so popular among women (Ognjenovic 2008).

68.6%. The share of those with college and university education remained unchanged as compared with 2004, while the portion of unemployed persons with primary or no education fell to 20.6%.[3] Unemployment of individuals with secondary education has been persistent on the Serbian labour market. Two main reasons could explain this situation. First, the system of secondary education does not produce occupations and skills that will meet labour market needs, and second, the long-term unemployed in particular have obsolete skills that are not in demand. This potential labour force needs to be further retrained in order to meet the requirements of potential employers. To overcome the persistent unemployment of persons with secondary education, the overall economic policies and education policies need to be linked more adequately. This problem could be resolved by forecasting the labour market needs. The results of forecasting may provide good insights for adjustment of both the education policy and the employment policy.

Unemployment hits young people disproportionately; the unemployment rate among people younger than 25 is more than twice as high as the overall unemployment rate. The highest incidence of unemployment in 2009 was observed among those with no education as well as among young people holding college degrees. Even for those with a university degree, the unemployment rate was almost 31%. There seem to be at least two factors responsible for the high unemployment rates among well-educated young people: first, the skills mismatch – the skills offered do not meet the requirements of the employers – and second, the probability of wage reservations, since wages offered are considered unsatisfactory (MoERD, 2009). The lack of work opportunities and strong regional disparities are the main reasons for young people to migrate either internally or abroad. Surveys carried out among young people in the period 2005–2008 show that between 18% and 23% of young people are planning to move in order to improve their employment prospects (MoERD, 2009).

In 2004, the LFS unemployment rate of young people (aged 15-24) was extremely high, namely 48.1%. The amelioration of the school enrolment rates of young people contributed to slowing down youth unemployment on the one hand, and on the other hand public policies oriented towards increasing youth activity and employment contributed to decreasing youth unemployment as well. The LFS records show a decrease in youth unemployment from 43.7% in 2007 to 41.6% in 2009. Not only high unemployment was a problem for young people, but also the quality of employment. At the same time, the rate of informal employment for youth jumped from 41% in 2002 to 50% in 2007 (Krstic and Corbanese, 2009).

[3] However, there are significant differences in the percentages of unemployed by educational attainment if measured by registration data. Accordingly, persons with low education levels accounted for 36% of the total unemployed in 2004 and for 35.1% in 2009, those with secondary education accounted for 56% and 54.1%, respectively, and persons with higher education made up 8.1% and 10.8%, respectively, of the total unemployed in those two years.

The problem of the unfavourable position of young people in the Serbian labour market was recognized by the authorities and policies were developed and implemented in order to moderate it. Besides the annual policies planned and implemented through the National Action Plans for current years (three such APs were introduced for 2009, 2010 and 2011), the ministry in charge of employment adopted the National Action Plan of Youth Employment for the period 2009–2011 as well. In order to tackle the high youth unemployment, in 2009 the MoERD introduced the apprenticeship programme 'First Chance', which subsidized employment of youth (below 30 years of age), see Box 1.1.

Box 1.1

Programmes for youth

The programme 'First Chance' was created to support 3-month voluntary apprenticeships and 12-month periods of employment of young people with various levels of education through wage subsidies with included obligatory social contributions. The only obligation of employers was to pay wage taxes according to the law. In 2009, 9,577 apprentices in Serbia and another 7,573 in Vojvodina province were hired through this programme. The programme continued in 2010 for 10,000 new apprentices. The employers who employed the 10,000 young people in 2010 have an obligation to keep those apprentices on the job for another 12 months after the period of receiving the state subsidy comes to an end. RSD 1.3 billion were spent on this programme in 2009, and RSD 1.8 billion were budgeted for the programme in 2010. The programme will be continued in 2011 as well; the MoERD plans to double the employment of new apprentices (MoERD, 2010).

In order to support youth employment, two projects partially financed by donors are in place as well. The project 'Youth, Employment and Migration' is supported by the Spanish government to the tune of USD 6.1 million and additionally by the Serbian government in the amount of USD 1.9 million, in order to provide employment opportunities for young people under 30 years of age with uncompleted secondary education, young persons with disabilities with no education, returnees in the process of readmission and other recipients of welfare support. The period of implementation of the programme is from May 2009 to November 2011. The second programme, 'Employment Promotion of Youth', in the value of USD 1.47 million, was foreseen to be implemented from July 2009 to the end of 2010. The programme is supported by the Open Society Fund (USD 0.57 million), the Italian government (USD 0.45 million) and the Serbian government (USD 0.45 million). The target groups that will benefit from this programme are young people under 30 years of age with uncompleted secondary education, young persons with disabilities with no education, and middle-aged unemployed women (30-45 years old). The aim of these programmes is to reintegrate these vulnerable groups into the local labour markets. The two programmes directly support the implementation of the National Action Plan of Youth Employment for the period 2009-2011.

The number of young people registered as unemployed by the NES indicates a certain positive impact of the programme on the employment of apprentices: At the end of October 2010, 100,584 unemployed persons below 24 years of age were recorded by the NES, which was 1.1% less that at the end of 2009. At the same time, the number of young unemployed women decreased by the same percentage and at the end of October was 49,794. In October 2010, compared to the end of 2009, the number of registered unemployed persons under 30 years of age was lower by 0.18% (195,225) and for young women alone it was lower by 0.52% (104,159).

1.2 Wage developments

An insight into wage behaviour can be obtained by analysing the relationship between real wage growth and productivity growth. One could look at this relationship in both directions: first, how and to what extent productivity shocks get absorbed into real wage developments, and second, whether a real wage push affects the employment intensity (the inverse of labour productivity) of an economy or of a particular sector. An analysis of this type is particularly interesting when conducted at the sectoral level, as one can analyse whether there are differences in how the individual sectors (e.g. tradable vs. non-tradable) absorb productivity and or wage (or real wage) shocks. In the following, we have examined the patterns of growth of both of these two variables at the sectoral level in Serbia.

Methods and data

Data for this analysis are taken from the wiiw Annual Database. More specifically, we have used data series for GDP by activities (NACE classification) combined with employment data. Data on GDP are available in nominal values and as an index series (2000 = 100) for GDP in real terms, from which growth rates of real GDP and changes in the price level can be derived. Employment data are based on registration (Labour Force Survey data are only available from 2004 on). With respect to wage data, we have used time series of nominal gross monthly wages. Data are consistently available over the period 1999–2008, i.e. not including the crisis year 2009.

To calculate the differences between the growth rate of real wages and productivity, we proceeded as follows: First we calculated the growth rate of labour productivity g_{LP} as the difference between the growth rate of real GDP (based on the GDP index), denoted by g_{RGDP}, and the growth rate of employment g_{EMP}, i.e.

$$g_{LP} = g_{RGDP} - g_{EMP} \quad (1)$$

Second, we constructed growth rates of real wages[4] by subtracting the growth rate of the price level g_P from the growth of nominal wages (gross monthly wages) denoted by g_{NGMW}, thus

$$g_{RW} = g_{NGMW} - g_P. \quad (2)$$

The growth rate of the price level was itself calculated by subtracting the growth rate of real GDP from the growth rate of nominal GDP. This allowed the calculation of the difference of labour productivity and real wages,

$$D = g_{LP} - g_{RW} \quad (3)$$

[4] Note that the 'real wage' is defined at the industry level, i.e. wages divided by the average price in this sector and not as wage income deflated by the consumer price index.

which is the important variable to be looked at. The results of this exercise are presented in Table 4. It presents the growth rates over the period 2001–2008 derived from the procedure outlined above for the total economy and by industry for employment (registered), real GDP, price level, nominal and real wages and productivity.

Table 4

Growth rates in %, 2001–2008

Industry	Employment	Real GDP	Price level	Nominal wage	Real wage	Productivity
Agriculture, hunting and forestry	-7.5	0.6	7.1	26.6	19.1	8.9
Fishing	-2.3	-1.8	3.9	20.5	18.3	0.6
Mining and quarrying	-6.1	2.7	17.7	23.3	6.5	9.7
Manufacturing	-7.1	1.6	12.2	25.4	12.1	9.4
Electricity, gas and water supply	-0.9	1.8	52.7	24.5	-4.3	2.7
Construction	-2.3	4.6	20.9	28.1	6.4	7.1
Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	-0.5	14.6	12.0	30.4	16.6	15.2
Hotels and restaurants	-6.4	-0.6	23.9	25.0	2.1	6.3
Transport, storage and communication	-2.2	16.1	5.0	24.0	19.3	18.8
Financial intermediation	-3.1	5.6	21.4	30.4	13.6	8.9
Real estate, renting and business activities	4.2	3.0	13.8	27.2	12.0	-1.0
Public administration and defence; compulsory social security	1.2	0.9	9.6	25.9	16.6	-0.4
Education	1.6	0.9	26.2	29.0	2.9	-0.7
Health and social work	-0.2	-0.1	22.6	28.4	4.8	0.0
Other community, social and personal service activities	1.5	2.2	24.8	26.3	1.5	0.7
Total economy	-2.9	4.6	12.7	27.2	12.8	7.7

Source: wiiw Annual Database; own calculations.

Results at the total economy level

At the total economy level, employment declined by about 3% per year, whereas real GDP increased by 4.6% on average. This is reflected in an annual increase in labour productivity of 7.7%. The growth rate of the price level (implicitly defined) was 12.7% per year. As nominal wages grew by more than 27%, this implies a real wage growth of 12.8%. Though these are very rough calculations (based on the data available), they point towards the huge gap between real wage growth and productivity growth, the former being 5 percentage points higher.

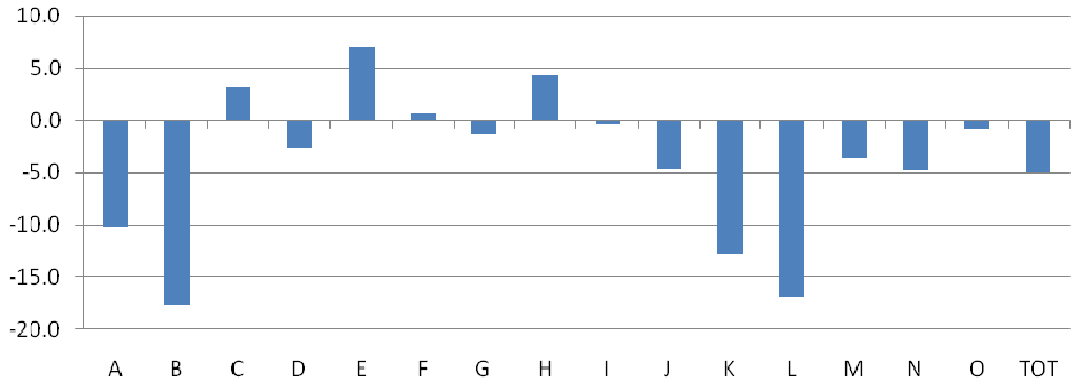
Results by types of industry

As indicated in Table 4 above, analogous calculations can be undertaken at the industry level. See Figure 5.

Figure 5

Difference between productivity growth and real growth by industries

in percentage points



Source: wiiw Annual Database; own calculations.

Looking first at employment, one finds a number of sectors with strong negative growth, in particular agriculture, mining, manufacturing, and hotels and restaurants. Sectors with positive employment growth are found in service activities, notably in real estate, renting and business activities, with a growth rate of 4.2%. Real GDP growth ranged from -1.8% in fishing to 16% in the transport industry. Further, the price level increased in all sectors, but again with large differences. Relatively small increases are found in agriculture, fishing, transport, and public administration (less than 10%), as well as in manufacturing, wholesale and real estate (12% to 13%), while the other sectors show growth rates around 20%. The only exception is the electricity, gas and water supply sector with an increase of more than 50% per year. Notably, nominal wage growth was rather similar across these sectors, ranging from 20.5% in fishing to 30.4% in wholesale and financial intermediation. The differences in real wage growth (note that this is the wage growth minus sectoral price growth) therefore stem from the strong differences in price developments across sectors. The growth rate was negative in electricity, gas and water supply (meaning that in this sector prices grew much faster than wages) whereas increases of almost 20% can be seen in agriculture, fishing, and transport. Finally, labour productivity growth was slightly negative in real estate, public administration and education, relatively small though positive in fishing and electricity, gas and water supply, and about average in the sectors of agriculture, mining, manufacturing, and financial intermediation. Productivity growth was outstanding in transport, storage and communication, at more than 18% according to these calculations.

Some sectors might be classified as ‘tradable’, namely agriculture (A), fishing (B), manufacturing (D), financial intermediation (J) and real estate, renting and business activities (K). Of these sectors, however, only manufacturing (D) and financial intermediation (J) show a similar development of real wages and productivity (Figure 5). Among publicly provided services, namely mining (C), energy (E), public administration (L), education (M) and

health and social work (N), only public administration (L) shows a large negative difference, whereas the others show relatively more balanced patterns or even a situation in which productivity growth is higher than wage growth (C and D). Finally, the remaining sectors, which might be classified as being mostly private and non-tradable, namely construction (F), wholesale (G), hotels (H) and transport (I), show a relatively balanced pattern, with the difference even being positive in some cases.

1.3 Informal economy

Large informal sector activities are another important feature of the Serbian economy. Due to the weakness of state structures as well as of the functioning of the formal sector, large informal sectors and activities with important ties with the states have developed in all South Eastern European countries. The estimates of informality vary, in part depending on the methodology used. A more recent study by Krstic and Sanfey (2009) based on data obtained from the Living Standards Measurement Surveys (LSMS) from 2002 and 2007 found that the informal sector employs a significant share of the Serbian workforce. Accordingly, the share of informal sector employment increased significantly during the period under consideration, from 28% to 35%, or even 37% if one includes workers with a verbal or no contract with the employer. If one considers only employees (excluding self-employed persons, farmers and unpaid family workers), the portion of those working in the informal economy doubled from 10% in 2002 to 20% in 2007. This rise is particularly striking as the economic environment improved remarkably over this period.

A large part of the workforce in the informal sector consists of young workers and males with low educational attainment levels (Ognjenovic, 2008). Sanfey and Krstic (2009) found that the share of older workers, better educated persons with secondary education or more, self-employed persons and unpaid family workers had increased between 2002 and 2007, while the share of workers in the services sector declined (Table 5). In addition, it turned out that wages in the informal sector were lower than in the formal sector in both years, with the gap between the two even increasing. Similar results were obtained from a World Bank study published in 2006.

One of the reasons behind the rising share of informal employment is probably the labour tax system in place until 2007, which placed a high tax burden on low-income labour. Consequently, employees tended to opt for informal work rather than working in the formal sector of the economy, as they would have lost a significant share of their income to taxes in the latter case. On the other hand, the regressive labour tax system prevented employers from hiring low-cost labour and thus probably reduced the chances of formal employment for vulnerable groups and discouraged hiring by small firms (World Bank, 2006). Until 2007, easy access to social benefits (health insurance and other social benefits) through

registration as unemployed at the employment service additionally encouraged informal sector employment.

Table 5

Characteristics of employment in the formal and informal economy, 2002–2007

%, population 15-64 years

	2002			2007		
	Informal	Formal	All	Informal	Formal	All
All	100.0	100.0	100.0	100.0	100.0	100.0
Gender						
Male	59.9	55.4	56.7	59.4	55.5	56.9
Female	40.1	44.6	43.3	40.6	44.5	43.1
Age categories						
15-25	15.1	7.9	9.9	10.7	7.3	8.5
26-45	45.8	53.0	51.0	44.3	53.0	50.0
46-64	39.1	39.1	39.1	45.0	39.7	41.5
Educational level						
No school or incomplete primary	12.9	4.3	6.6	9.3	1.1	4.0
Primary school	26.5	14.9	18.1	27.4	9.9	16.0
Vocational or three-year secondary	24.2	21.0	21.9	18.7	16.3	17.1
Secondary or high school	29.5	39.0	36.4	35.8	46.5	42.8
College	4.0	8.1	7.0	3.7	9.4	7.4
University	2.9	12.6	10.0	5.1	16.8	12.7
Employment type						
Wage-employment	60.7	91.1	85.0	49.2	88.9	75.0
Self-employment	9.9	3.9	5.1	14.2	1.9	6.2
Farmers	26.7	4.6	9.0	25.3	9.1	14.7
Unpaid family workers	2.8	0.5	0.9	11.4	0.2	4.1
Sector of economic activity						
Agriculture	40.8	15.5	22.6	44.5	5.8	19.3
Industry	12.7	30.4	25.5	21.9	32.9	29.1
Services	46.6	54.1	52.0	33.6	61.3	51.6
Average monthly net main job earnings (in dinars)*	8,634.3	9,425.2	9,272.8	16,246.5	24,707.0	22,495.7
Coefficient of variation for monthly net main job earnings	1.123	0.795	0.861	0.805	0.633	0.689

* For those who reported positive hours worked.

Source: Krstic and Sanfey (2009) based on LSMS 2002 and 2007.

However, the informal sector was affected by the crisis in a similar way as the formal sector. If the self-employed persons are taken as a measure of employment in informal economy, the loss of employment in the crisis years, i.e. between April 2008 and April 2010, was the same, proportionately, in the informal as in the formal sector. One quarter of employed were in the informal sector and the loss in jobs was also one quarter in the last two years. This is an indication that market and tax conditions are not the most important reasons for the choice between the formal and informal employment. Further study is clearly

warranted to determine the sources and causes of informality both in good times and in bad.

1.4 Labour supply and demand mismatches and characteristics of unemployed: skills mismatch

To analyse the aggregate labour market changes (shifts in registered unemployment, opened vacancies and filled vacancies, or as a percentage of employment or unemployment) we have used the official data from the register of the NES.

As Table 6 shows, the most prominent shifts are characteristic of those with a four-year secondary (vocational or general) school education, those with a three-year vocational education and those with primary school and less.

Over the years, these three categories of unemployed persons comprise more than four fifths of the registered unemployed, a share which decreased slightly from 86% in 2004 to 84% in 2009. At the same time, the proportion of unemployed persons with post-secondary non-university and university education increased, from almost 7% to over 9%. In addition, the percentage of unemployed persons with incomplete vocational secondary education (two years of education after finishing primary school) increased as well. The most reasonable explanation for this development is that among the unemployed with post-secondary, non-university and university education, a significant percentage can be attributed to the inflow of young people from colleges and universities, while among the unemployed with two-year vocational education, the majority are long-term unemployed or persons who lost their jobs during privatization and restructuring of the corporate social sector.

On the demand side, a significant number of vacancies[5] opened up for the aforementioned education categories of the labour force. The share of vacancies for persons with four-year secondary (vocational and general) school, three-year vocational school, and finished and unfinished primary school remained stable and accounted for about three quarters of total vacancies. At the same time, the demand for persons with post-secondary non-university and university education was also stable at some 16% until 2008; in 2009 this share increased to 18.5%.

[5] It could be stressed that vacancies opened in 2009 are not methodologically comparable with time series data that correspond to the previous years. The shifts in methodology are a result of changes in the new Law on Employment and Unemployment Insurance. Interviewed professionals of the NES consider that this change will help in cleaning up data on the number of opened vacancies and that cleaned data will be more realistic. The previous law obliged employers to record vacancies in the NES. These data were mixed and they represented real needs of employers, but also needs that would be filled with the same workers at the same job places. All in all, the data on registered vacancies by the NES were overestimated. On the other hand, neither the data recorded by the previous methodology nor by that currently used measure real vacancies in the Serbian economy. There is no incentive to combine data on vacancies from different sources.

Table 6

Registered unemployed, vacancies and employment by level of education

Year	Category	Level of education[1] 1st level	2nd level	3rd level	4th level	5th level	6th levels	7th level and more	Total
2004	Registered unemployed	261,164	47,979	238,898	242,635	9,894	29,720	29,438	859,728
	Registered vacancies	118,925	35,970	133,494	120,799	4,190	18,011	76,305	507,694
	Employment/filled vacancies	105,313	31,773	119,749	109,036	2,660	16,696	54,195	439,422
	Unfilled vacancies	13,612	4,197	13,745	11,763	1,530	1,315	22,110	68,272
	Share of unfilled vacancies in the employed, %	12.9%	13.2%	11.5%	10.8%	57.5%	7.9%	40.8%	15.5%
	Share of unfilled vacancies in the unemployed, %	5.2%	8.7%	5.8%	4.8%	15.5%	4.4%	75.1%	7.9%
	Ratio of unfilled vacancies and unemployed	19.2	11.4	17.4	20.6	6.5	22.6	1.3	12.6
2005	Registered unemployed	281,422	50,032	242,249	247,008	10,565	32,065	32,356	895,697
	Registered vacancies	138,645	43,394	160,141	153,805	5,686	20,724	80,163	602,558
	Employment/filled vacancies	127,683	40,554	148,355	137,195	3,498	19,492	60,362	537,139
	Unfilled vacancies	10,962	2,840	11,786	16,610	2,188	1,232	19,801	65,419
	Share of unfilled vacancies in the employed, %	8.6%	7.0%	7.9%	12.1%	62.6%	6.3%	32.8%	12.2%
	Share of unfilled vacancies in the unemployed, %	3.9%	5.7%	4.9%	6.7%	20.7%	3.8%	61.2%	7.3%
	Ratio of unfilled vacancies and unemployed	25.7	17.6	20.6	14.9	4.8	26.0	1.6	13.7
2006	Registered unemployed	297,638	50,326	245,406	244,705	10,741	33,546	33,895	916,257
	Registered vacancies	156,766	50,001	192,379	183,677	4,628	24,701	94,988	707,140
	Employment/filled vacancies	143,789	45,733	178,767	166,488	3,504	22,805	70,449	631,535
	Unfilled vacancies	12,977	4,268	13,612	17,189	1,124	1,896	24,539	75,605
	Share of unfilled vacancies in the employed, %	9.0%	9.3%	7.6%	10.3%	32.1%	8.3%	34.8%	12.0%
	Share of unfilled vacancies in the unemployed, %	4.4%	8.5%	5.5%	7.0%	10.5%	5.7%	72.4%	8.3%
	Ratio of unfilled vacancies and unemployed	22.9	11.8	18.0	14.2	9.6	17.7	1.4	12.1
2007	Registered unemployed	249,953	42,494	210,406	210,587	9,972	30,745	30,942	785,099
	Registered vacancies	162,200	55,755	216,463	195,386	5,245	26,279	97,504	758,832
	Employment/filled vacancies	150,312	52,598	204,548	182,170	3,618	25,572	76,690	695,508
	Unfilled vacancies	11,888	3,157	11,915	13,216	1,627	707	20,814	63,324
	Share of unfilled vacancies in the employed, %	7.9%	6.0%	5.8%	7.3%	45.0%	2.8%	27.1%	9.1%
	Share of unfilled vacancies in the unemployed, %	4.8%	7.4%	5.7%	6.3%	16.3%	2.3%	67.3%	8.1%
	Ratio of unfilled vacancies and unemployed	21.0	13.5	17.7	15.9	6.1	43.5	1.5	12.4
2008	Registered unemployed	228,400	38,787	194,107	195,107	8,936	30,104	32,180	727,621
	Registered vacancies	162,557	56,401	226,820	205,984	6,045	29,629	102,825	7902,61
	Employment/filled vacancies	149,393	55,207	219,337	198,349	4,116	29,002	82,321	737,725
	Unfilled vacancies	13,164	1,194	7,483	7,635	1,929	627	20,504	52,536
	Share of unfilled vacancies in the employed, %	8.8%	2.2%	3.4%	3.8%	46.9%	2.2%	24.9%	7.1%
	Share of unfilled vacancies in the unemployed, %	5.8%	3.1%	3.9%	3.9%	21.6%	2.1%	63.7%	7.2%
	Ratio of unfilled vacancies and unemployed	17.4	32.5	25.9	25.6	4.6	48.0	1.6	13.8
2009[2]	Registered unemployed	218,160	37,992	195,810	199,491	8,383	33,285	37,251	730,372
	Registered vacancies	103,603	32,090	144,571	136,606	3,716	21,425	74,105	516,116
	Employment/filled vacancies	121,585	41,824	188,593	178,099	4,058	27,964	80,866	642,989
	Realization of employment, in %	117.4%	130.3%	130.5%	130.4%	109.2%	130.5%	109.1%	88.0%

1) 1st level – elementary school and less; 2nd level – two classes of secondary school; 3rd level – 3 classes of vocational school; 4th level – secondary (vocational and general); 5th level – 5 classes of secondary school; 6th level – college; 7th level – university and more. - 2) The data on vacancies for 2009 is not methodologically comparable with the previous time series, due to changes of the 2009 law on employment and insurance from unemployment. Employers are not obliged to record every vacancy according to the new rules, so that the number of registered vacancies is underestimated compared to the previous period.

Source: Own calculation based on National Employment Service's Business Reports 2004–2009.

Table 6 above shows several additional indicators for analysing the gap between labour supply and demand. The share of unfilled vacancies in employment is higher for those educational categories that recorded a higher percentage of unemployed persons. It is obvious that a job shortage existed for the unemployed with university education and five-year secondary education, but the gap between filled and unfilled vacancies decreased over time. Compared to the registered unemployed, the ratio of the unemployed and unfilled vacancies was more favourable (but with a slowly increasing trend) for better-educated people compared to the other educational categories. For every person holding a university degree, two unemployed persons from the same educational category were waiting for a job. Persons with a two-year vocational education, three-year vocational, four-year vocational and general education and post-secondary non-university education faced the worst situation. In 2008, when the crisis became obvious, one person with post-secondary non-university education was employed out of 48 unemployed who were still waiting for a job. The situation of persons with two-year vocational education deteriorated significantly, and for one filled vacancy, 33 unfilled vacancies were recorded. On the other hand, apart from the regulatory changes that caused a shift in the methodology in May 2009, the data show a drop in the number of vacancies not only due to these changes but also due to a low availability of jobs. It is obvious that the crisis caused a rise in unemployment and a drop (or stagnation) in new job openings.

In order to explore all the causes of the labour supply and labour demand mismatches, the following analysis focuses on skills mismatches (apart from the educational level analysed in Table 6) through occupational groups, regional mismatches, needs of economic sectors, and similar factors.

As Tables A6 and A7 in the Annex show, a significant and stable percentage of the unemployed was registered within the groups of other occupations[6] and mechanical engineering and metal processing, covering over one third and 14% of the unemployed, respectively. Those occupations do not correspond properly with the vacancies, since the share of vacancies is below the number of registered unemployed. On the other hand, underrepresented vacancies are present in occupational groups such as trade, hotels and restaurants and tourism, economics, law and administration, health, pharmacy and social protection. The interesting conclusion is that the percentages within these two sets of registered data across the occupational groups have not changed over the years. This means that labour market policies have a limited influence on filling labour market imbalances.

A somewhat similar situation is shown in Annex Table A8, which records the dynamics of registered vacancies and employment by economic sector. As a general conclusion it can be stated that there are almost the same numbers of filled and unfilled vacancies, but with

[6] The group of other occupations covers personal services occupations, religion-related occupations and non-classified occupations, which dominate within the category.

a tendency toward a narrowing of the existing gap, especially in the sector of industry and construction (one third of total vacancies) and in the services sectors (somewhat below two thirds of the vacancies), while the remaining approximately 3% gap belongs to agriculture. The gap between vacancies and unfilled vacancies was reduced between 2004 (87% filled vacancies) and 2008 (93% filled vacancies), while in 2009 the recorded number of filled vacancies exceeded the supplied jobs by one quarter due to changes in recording the vacancies and an obvious drop in jobs sought.

Table 7 points to a significant number of unfilled vacancies in the Branicevski, Podunavski, Pcinjski, Severno-banatski and Srednje-banatski districts. In addition, some positive trends in filling registered vacancies can be seen in the following districts: Belgrade, Zajecarski, Juzno-backi, Moravicki, Nisavski, Pirotski, Pcinjski, Raski, Sumadijski districts. The situation deteriorated in the Podunavski, Sremski and Toplicki districts. In general, the results presented in Table 7 point to a need for serious action in the implementation of labour market measures through both training programmes and new jobs incentives.

Table 7

Unfilled vacancies as % of registered vacancies by district

District	2004	2005	2006	2007	2008
Belgrade	10.4%	8.6%	7.8%	6.5%	6.1%
Borski	10.6%	5.4%	8.8%	6.0%	5.1%
Branicevski	14.2%	16.8%	11.4%	11.9%	14.5%
Zajecarski	19.7%	8.5%	16.9%	13.1%	5.7%
Zapadno-backi	7.0%	7.1%	6.3%	8.6%	6.7%
Zlatiborski	8.3%	7.6%	12.4%	4.9%	5.7%
Jablanicki	7.6%	1.5%	12.0%	17.6%	6.3%
Juzno-banatski	8.9%	14.6%	8.3%	7.7%	5.6%
Juzno-backi	36.9%	15.3%	21.7%	16.1%	8.4%
Kolubarski	7.2%	2.8%	10.9%	1.0%	3.0%
Macvanski	8.7%	3.7%	7.9%	2.3%	4.1%
Moravicki	16.8%	11.0%	9.0%	7.1%	4.3%
Nisavski	10.6%	10.3%	4.2%	5.0%	3.2%
Pirotski	13.2%	23.2%	3.6%	4.1%	1.6%
Podunavski	0.5%	16.6%	26.0%	14.0%	11.4%
Pomoravski	6.5%	1.6%	1.5%	-0.4%	2.1%
Pcinjski	22.3%	26.6%	18.0%	27.0%	9.7%
Rasinski	8.4%	7.5%	14.9%	9.7%	6.0%
Raski	12.9%	16.4%	8.2%	8.8%	6.7%
Severno-banatski	37.4%	27.1%	29.1%	7.2%	13.7%
Severno-backi	13.9%	7.9%	7.5%	7.2%	8.3%
Srednje-banatski	20.0%	18.5%	15.8%	20.3%	14.6%
Sremski	2.3%	4.2%	3.3%	2.9%	6.7%
Toplicki	-0.3%	11.0%	9.0%	8.0%	8.4%
Sumadijski	22.4%	22.1%	7.1%	5.6%	2.5%
Kosovsko-Mitrovacki	n.a.	85.0%	n.a.	n.a.	n.a.
Total	13.4%	11.0%	10.7%	8.3%	6.6%

Source: Own calculation based on National Employment Service's Business Reports 2004–2009.

The districts with a significant number of unfilled vacancies (with the exception of the Srednje-banatski district) reported an increasing share in the total registered unemployed over the years (see Table 8).

On the other hand, only Belgrade and the Juzno-backi and Moravicki districts show a decreasing share in total unemployment, while the other aforementioned districts, reporting a narrowing gap in filling vacancies, showed a steadily increasing share in total unemployment.

Table 8

Share of unemployed by district

District	2004	2005	2006	2007	2008	2009	Change +/-
Belgrade	15.4%	15.8%	15.3%	14.5%	13.5%	12.5%	-
Borski	1.8%	1.6%	1.8%	1.8%	1.8%	1.7%	-
Branicevski	1.0%	1.1%	1.1%	1.2%	1.3%	1.3%	+
Zajecarski	1.8%	1.6%	1.6%	1.8%	1.9%	2.0%	+
Zapadno-backi	3.7%	3.5%	3.3%	3.2%	3.0%	3.0%	-
Zlatiborski	5.0%	4.8%	4.8%	4.8%	4.8%	4.7%	-
Jablanicki	4.2%	4.0%	4.2%	4.5%	4.8%	4.9%	+
Juzno-banatski	4.8%	4.5%	4.5%	4.4%	4.3%	4.4%	-
Juzno-backi	9.0%	9.1%	9.1%	8.2%	8.4%	8.9%	-
Kolubarski	1.9%	1.9%	1.8%	1.6%	1.5%	1.7%	-
Macvanski	5.6%	5.5%	5.4%	5.1%	5.1%	5.0%	-
Moravicki	3.5%	3.0%	3.1%	3.0%	3.0%	2.9%	-
Nisavski	5.5%	5.3%	5.7%	6.6%	6.9%	6.5%	+
Pirotski	1.5%	1.5%	1.7%	2.0%	2.1%	2.1%	+
Podunavski	2.3%	2.7%	2.9%	2.4%	2.2%	2.1%	-
Pomoravski	2.5%	2.8%	3.1%	3.2%	3.6%	3.7%	+
Pcinjski	3.6%	3.7%	3.9%	4.0%	3.8%	4.1%	+
Rasinski	3.4%	3.2%	3.2%	3.5%	3.7%	3.8%	+
Raski	4.6%	4.7%	4.8%	6.1%	6.7%	6.8%	+
Severno-banatski	2.2%	2.0%	2.0%	1.9%	2.2%	2.0%	-
Severno-backi	3.1%	3.0%	2.9%	1.9%	1.9%	2.2%	-
Srednje-banatski	3.2%	3.1%	3.2%	3.3%	2.8%	2.7%	-
Sremski	5.5%	5.1%	5.1%	4.4%	3.8%	3.6%	-
Toplicki	1.3%	1.5%	1.6%	1.8%	2.0%	2.1%	+
Sumadijski	3.7%	3.8%	4.0%	4.8%	4.9%	4.9%	+
Kosovsko-Mitrovacki	0.0%	1.2%	0.0%	0.0%	0.0%	0.3%	n.a.
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Source: Own calculation based on National Employment Service's Business Reports 2004-2009.

The development of filled vacancies by type of employment shows a deterioration in terms of the duration of employment contracts (see Table 9). The share of permanently employed decreased by 10 percentage points between 2004 and 2009, while the number of filled vacancies in temporary jobs increased by about the same number of percentage points. It is almost obvious, however, that among the temporary and even among the permanent jobs there are a lot of doubled vacancies because the employers often record va-

cancies that will be filled by a person who previously worked at the same place on a permanent or temporary contract.

Table 9

Registered and filled vacancies by type of employment

Vacancies	2004	2005	2006	2007	2008	2009
Registered vacancies	507,694	602,558	707,140	758,832	790,261	516,116
Filled vacancies	439,422	537,256	631,535	695,508	737,725	642,989
of which:						
permanent job	178,543	211,519	248,866	274,648	281,002	201,962
temporary job	260,879	325,620	382,669	420,860	456,723	441,027
permanent job, in %	40.6	39.4	39.4	39.5	38.1	31.4
temporary job, in %	59.4	60.6	60.6	60.5	61.9	68.6

Source: Own calculation based on National Employment Service's Business Reports 2004-2009.

In the following we have analysed the registered unemployed by level of education, duration of unemployment, age and gender. In terms of the educational level of the registered unemployed, there was a slight decrease in the share of persons with two-year vocational, three-year vocational and 4-year secondary (vocational and general) school (Table 10). In general, those three categories represent nearly 60% of the total registered unemployed in Serbia. The left tail of the distribution of the unemployed by education, which includes unskilled and semiskilled labour, moved towards higher coverage of the unemployed up to 2008, and in the last two years the share of unskilled labour decreased. At the same time, on the opposite tail of the distribution, which includes post-secondary non-university and university education, the situation was different. Over the observed period, in particular during 2008 and 2009, the share of highly skilled unemployed steadily increased. This might be explained by the fact that during the crisis, fewer adequately specialized jobs were supplied to the highly skilled, while unskilled and semiskilled workers had more chances of finding a job.

As the second panel of Table 10 shows, this bias against the skilled was particularly characteristic of female unemployment in 2008 and 2009. According to the administrative data on unemployment, women with a university degree had less chance of finding a decent job. In all other educational groups, the share of women as a percentage of the unemployed decreased. One of the possible explanations is that the availability of jobs for highly educated women in certain occupations was lower. From 2004 to 2007, the share of the registered short-term unemployed decreased, while long-term unemployment was on the rise. In the following two years, the share of those who had been seeking jobs for up to

Table 10

Registered unemployed by level of education and gender, in %

Category	2004	2005	2006	2007	2008	2009
Level of education			Total registered unemployed			
1st level	30.4	31.4	32.5	31.8	31.4	29.9
2nd level	5.6	5.6	5.5	5.4	5.3	5.2
3rd level	27.8	27.0	26.8	26.8	26.7	26.8
4th level	28.2	27.6	26.7	26.8	26.8	27.3
5th level	1.2	1.2	1.2	1.3	1.2	1.1
6th levels	3.5	3.6	3.7	3.9	4.1	4.6
7th level and more	3.4	3.6	3.7	3.9	4.4	5.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Level of education			% of unemployed women			
1st level	55.0	54.9	55.1	54.7	54.4	53.1
2nd level	57.9	57.8	57.2	56.5	56.4	54.7
3rd level	43.3	43.3	42.8	42.6	43.2	41.9
4th level	63.9	63.8	63.2	63.2	63.1	61.7
5th level	19.3	18.9	17.9	17.3	17.0	17.7
6th levels	60.6	60.3	59.4	60.0	60.5	60.4
7th level and more	58.7	58.8	59.1	60.2	61.5	61.4
Total	54.3	54.3	53.9	53.8	54.0	52.9

Source: Own calculation based on National Employment Service's Business Reports 2004-2009.

12 months rose rapidly, while the share of those who had been seeking jobs for 12 to 24 months increased in 2008, but dropped significantly thereafter (see Table 11 below). Also, long-term unemployment followed a decreasing trend from 2008 onwards, falling to 47% in 2009. However, from 2007 on, the shifts seen among the long-term unemployed are due to a cleaning up of the records of the unemployed following changes made in the provision of health insurance for the registered unemployed.[7] These changes affected the long-term unemployed more than those who registered with the NES during 2008 and 2009. It can be additionally illustrated by the data on the number of first job seekers; namely, the share of first job seekers among the unemployed dropped significantly from 53.5% in 2004 to 36.6% in 2009. This implies that the problem of the long-term unemployed did not diminish and that among the unemployed the percentage of those who lost their jobs or were previously recorded by the NES tended to increase.

Women accounted for about one half of the first-time job seekers; overall, the share of women in total unemployment gradually decreased. On the other hand, the share of women who were unemployed for increasingly long periods of time increased. Among the discouraged unemployed, the percentage of women with over five years of unemployment duration is about three fifths of the total or more.[8]

[7] Since 2007, this has been under the jurisdiction of the health insurance fund, so that registration with the NES does not mean that the unemployed individuals will have the right to health insurance automatically.

[8] Similar evidence is provided by other sources of data, such as RSO LSMS 2002-2007 (2008) or RSO LFS 2004-2009.

Table 11

Registered unemployed by duration of unemployment and gender, in %

Category	2004	2005	2006	2007	2008	2009
Duration of unemployment			Total registered unemployed			
Up to 1 year	29.7	28.0	25.8	22.8	23.1	35.6
1-2	17.6	20.2	20.9	19.9	21.8	17.6
2-3	13.0	11.4	13.0	13.5	11.8	9.6
3-5	13.5	15.1	15.1	16.2	15.7	12.7
5-8	10.1	9.9	10.5	12.7	12.8	11.3
8-10	4.4	3.9	3.8	3.8	4.2	3.7
Over 10 year	11.7	11.3	11.0	11.1	10.6	9.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Duration of unemployment			% of unemployed women			
Up to 1 year	49.7	49.7	49.1	48.7	49.2	48.3
1-2	51.7	51.7	51.5	50.2	51.3	50.7
2-3	52.5	53.0	52.8	52.5	51.6	51.9
3-5	54.4	54.1	54.2	54.7	54.7	54.6
5-8	56.0	56.3	55.9	55.7	56.9	56.4
8-10	60.9	61.0	59.7	58.2	56.0	57.9
Over 10 year	67.9	67.7	67.3	67.1	67.2	66.9
Total	54.3	54.3	53.9	53.8	54.0	52.9

Source: Own calculation based on National Employment Service's Business Reports 2004-2009.

Table 12

Registered unemployed by age groups and gender, in %

Category	2004	2005	2006	2007	2008
Age group			Total registered unemployed		
Up to 18 years	0.6	0.9	0.9	1.2	1.2
19-25	19.5	18.4	17.2	16.4	15.7
26-30	16.4	15.2	14.3	13.2	12.7
31-40	26.4	25.4	24.7	24.5	24.4
41-50	20.9	21.4	22.0	23.2	23.7
Over 50 years	16.3	18.7	20.9	21.5	22.2
Total	100.0	100.0	100.0	100.0	100.0
Age group			% of unemployed women		
Up to 18 years	50.7	48.1	49.4	45.4	43.5
19-25	52.0	51.9	52.1	52.6	53.4
26-30	58.7	58.9	58.8	60.1	60.3
31-40	59.4	59.8	59.6	60.6	60.9
41-50	55.1	55.6	55.9	55.9	56.6
Over 50 years	43.4	44.2	43.7	41.3	40.9
Total	54.3	54.3	53.9	53.8	54.0

Source: Own calculation based on National Employment Service's Business Reports 2004-2009.

The percentage of young people up to 30 years of age in total unemployment fell from 36% in 2004 to 30% in 2008 (Table 12 above). A similar trend was observed for the 31-40 age

group, while at the same time the percentages of the remaining age groups increased. In terms of gender, the percentage of unemployed women increased in all age groups during the period 2004-2008, the exception being those over 50 years of age.

This trend continued in 2009: as illustrated in Table 13, the percentage of young people up to the age of 29 in total unemployment was 27%, while unemployment was less pronounced in the age groups up to 44; an increasing percentage can be observed for those over 45. The percentage of unemployed persons over 55 years significantly decreased, which is possibly due to early retirement or exiting from the labour market altogether. The percentage of unemployed women in the total in 2009 as compared to the previous period did not change significantly.

Table 13

Registered unemployed by age groups and gender, 2009

Category *Age group*	Total unemployed	Structure in %	Women	% of women
15-19	22,549	3.1	9,959	44.2
20-24	79,139	10.8	40,391	51.0
25-29	93,892	12.9	54,350	57.9
30-34	91,218	12.5	54,421	59.7
35-39	87,209	11.9	52,199	59.9
40-44	87,155	11.9	50,592	58.0
45-49	88,205	12.1	48,803	55.3
50-54	87,629	12.0	45,480	51.9
55-59	71,939	9.8	27,959	38.9
Over 60 years	21,437	2.9	1,971	9.2
Total	730,372	100.0	386,125	52.9

Source: Own calculation based on National Employment Service's Business Reports 2004-2009.

As shown in Table 14 below, the number of registered unemployed persons with disabilities decreased between 2004 and 2009. The share of females, accounting for about one third of the total, decreased over the observed period as well. The activity rate of women with disabilities (24.9%) was significantly lower than that of men (36.7%) (RSO 2008, p. 83). This could serve as an explanation for the low percentage of women in the total number of registered unemployed persons with disabilities.

The structure of unemployed persons with disabilities by educational attainment shows a significantly higher percentage of those with low or without formal education compared to the total registered unemployed. The percentage of those people decreased over the observed period. The share of unemployed with three-year vocational education was stable over the years and accounts for almost one third of the total, while the share of those with four-year secondary (vocational and general) school and university education increased slightly during the observation period. Women constituted about two fifths of the registered

unemployed in almost all educational groups, with the exception of those with five-year secondary education, where unemployed women were represented with a small percentage.

Table 14

Unemployed persons with disabilities by gender

Category	2004	2005	2006	2007	2008	2009
Total registered unemployed	26,483	25,864	27,577	23,202	23,202	18,118
Women	9,317	8,891	9,381	n.a.	n.a.	5,929
% of women	35.2	34.4	34.0	n.a.	n.a.	32.7
By level of education, in %						
1st level	38.7	38.6	37.8	37.9	37.9	34.0
2nd level	11.0	11.1	10.9	10.2	10.2	12.3
3rd level	32.5	32.1	31.7	32.2	32.2	32.6
4th level	12.6	13.5	14.4	14.7	14.7	15.6
5th level	2.9	2.4	2.8	2.6	2.6	2.3
6th levels	1.5	1.4	1.4	1.4	1.4	2.2
7th level and more	0.9	0.9	1.0	1.0	1.0	1.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Women						
By level of education, in %						
1st level	35.0	34.8	33.5	n.a.	n.a.	30.4
2nd level	43.6	42.0	43.8	n.a.	n.a.	43.1
3rd level	32.3	30.6	29.8	n.a.	n.a.	30.0
4th level	41.9	39.9	41.7	n.a.	n.a.	39.0
5th level	8.1	9.0	5.7	n.a.	n.a.	8.0
6th levels	34.3	33.9	36.5	n.a.	n.a.	25.0
7th level and more	39.5	41.7	44.8	n.a.	n.a.	34.7
Total	35.2	34.4	34.0	n.a.	n.a.	32.6

Source: Own calculation based on National Employment Service's Business Reports 2004–2009.

It has to be stressed, however, that the number of registered unemployed persons with disabilities is underreported compared to the total number of persons with disabilities, accounting for an estimated 10% of the total Serbian population (RSO 2008, p. 79). In addition, vulnerable groups in general are not adequately covered by registration data.

Table 15 shows a comparison between the dynamics of the filling of total recorded vacancies and that of filling vacancies through employment from the NES register, by required level of education. The data presented could serve as a indication of the real needs of employers in terms of job brokerage that resulted in employment. The structure evident from the second panel of Table 15 shows that the share of vacancies filled by the registered unemployed (employment from registered unemployed persons of the same educational group) in total filled vacancies is between 60% and 50% for unskilled labour during the period observed. In general, the dynamics of filling the gap is stable over the years for all observed educational categories. However, the percentage of highly skilled labour and persons with university education is lower than that of those with three-year vocational

education and less. This means that unemployed persons with lower education meet employers' needs to a higher percentage than other professionals. Skills mismatches are higher for other categories.

Table 15

Total filled vacancies and employment from the NES register

Category	2004	2005	2006	2007	2008	2009
By level of education			Total filled vacancies			
1st level	24.0	23.8	22.8	21.6	20.3	18.9
2nd level	7.2	7.6	7.2	7.6	7.5	6.5
3rd level	27.3	27.6	28.3	29.4	29.7	29.3
4th level	24.8	25.5	26.4	26.2	26.9	27.7
5th level	0.6	0.7	0.6	0.5	0.6	0.6
6th levels	3.8	3.6	3.6	3.7	3.9	4.3
7th level and more	12.3	11.2	11.2	11.0	11.2	12.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
By level of education			Employment from the NES register			
1st level	60.2	54.5	54.9	53.5	53.7	51.3
2nd level	57.7	52.1	48.1	49.5	47.2	43.7
3rd level	51.1	45.8	46.8	46.6	43.9	40.5
4th level	43.2	37.3	40.3	39.1	37.4	37.6
5th level	38.6	37.0	39.7	38.7	34.6	36.8
6th levels	49.3	47.0	46.6	45.0	42.7	44.3
7th level and more	40.3	37.0	39.9	37.9	36.4	38.3
Total	50.3	45.2	46.2	45.3	43.4	41.8

Source: Own calculation based on National Employment Service's Business Reports 2004-2009.

Table 16 below summarizes the dynamics of filled vacancies, total filled vacancies and vacancies filled by employment from the NES register, as well as realization of employment by gender. The employment rate tends to show better perspectives for men than for women, but in 2009 it is nearly the same for both genders. Among the vacancies filled by registered unemployed, employment of women accounts for half of all job placements.

In interpreting the analysis given above, it should be borne in mind that the structure of the unemployed by duration of unemployment, by age cohorts etc. has its sources in the skills mismatch on the labour market. This is recognized as a general problem of structural unemployment in Serbia. However, data for 2009 show lower demand for new workers, particularly skilled and highly skilled labour; thus, currently the skills mismatches appear to be of secondary importance. The most important issue now is to design measures that will stimulate the creation of new jobs.

Table 16

Total filled vacancies, vacancies filled by registered unemployed, realization of employment by gender

Category	2004	2005	2006	2007	2008	2009
Total filled vacancies	439,422	537,139	631,535	695,508	737,725	642,989
Realization of employment						
employment rate, in %	17.2	19.4	21.1	24.5	24.5	22.2
men, in %	n.a	n.a	22.6	25.8	25.8	22.1
women, in %	n.a	n.a	19.9	23.3	23.3	22.3
Vacancies filled through						
employment from the NES register	221,156	242,627	291,774	314,847	320,531	268,805
of which women	115,441	120,702	145,783	156,350	158,944	140,230
employed women, in %	52.2	49.7	50.0	49.7	49.6	52.2

Source: Own calculation based on National Employment Service's Business Reports 2004–2009.

Employers' views on skills shortages

On the other side, employers' opinions about skill shortages could be a valuable source of information for further steps necessary to alleviate the mismatch problem. According to the RSO employers survey that was conducted during June-July 2009,[9] for managers and professionals the most important recognized skill gaps are those necessary for problem solving and decision making as well as for organization, managing and planning. In addition, administrative workers have insufficient knowledge in organization, managing and planning and in management of information and ICT, while skilled traders and process operators face gaps in efficient use of materials, equipment and tools and teamwork. Sales and customer service occupations, available at the labour market, need to fill serious gaps in teamwork, flexibility and adaptability, literacy and numeracy and organization, managing and planning. Elementary occupations mostly have gaps in skills such as efficient use of materials, equipment and tools and literacy and numeracy.

The employers' opinions show that the youth are less preferred neither as high skilled professionals nor as ordinary workers in production and simple jobs (Table 17). The percentage of those who do not have a clear picture about the engagement of the youth without previous experience should be a guideline for the creation of adequate policies that will have a mandate for resolving transition problems from school to work.[10] Regarding the gender issues, there are significant differences in the willingness to engage men or women, but the difference is lower for occupations that need higher education such as managers, professionals and administrative staff. All in all, the employers do not have a clear picture about the engagement of men and women at the

[9] RSO (2010), *Occupation and skill survey*, Draft Report, April.

[10] ETF (2007), *Transition from Education to Work: Serbia Country Report*, prepared by Arandarenko, M., January.

Table 17

Employers' preferences for the recruitment of occupations by age, gender and education

in %

	Managers, professionals, administrative staff	Workers in production and elementary occupations
Age		
15-24	3.6	7.0
24-45	54.5	56.3
45>	3.4	1.3
No preference	38.4	35.5
Gender		
Men	19.1	37.6
Women	7.0	6.5
No preference	73.9	55.9
Education		
Primary and less	0.8	5.4
Secondary	29.7	77.2
Tertiary	65.8	12.6
Other	3.7	4.8

Source: RSO, Occupation and skill survey, 2010.

positions of managers, professionals and administrative staff as less than three quarters have no preferences. Regarding the educational attainment, even for simple jobs and jobs in manufacturing employers require at least secondary education and higher. Only 5.4% of the surveyed employers think that primary school and less will be appropriate for the jobs offered. This would suggest that the labour force in Serbia is not educated enough for requirements of new jobs in particular in the sectors that have potential for further growth, including IT based industries, construction and services such as real estate, finance, consulting, trade and catering, transport, storage and communication.[11]

The NES does not conduct a regular analysis of vacancies. During the previous period, two such analyses were prepared within the pilot activity on forecasting of labour market needs (ESPI, 2009) and an *ad hoc* survey on occupations and skills (RSO, 2010). However, the NES recognized the problem of absence of sufficient instruments for following-up the labour market needs as a crucial one. Supported by the EU IPA, the NES got involved in the project 'Technical assistance to enhance the data management, forecasting and monitoring and evaluation capacity of the NES' that will upgrade internal capacities of the NES and the ministry in charge of employment in order to improve implementing methodologies and system of labour market needs forecasting. Through this project a regular an-

[11] ETF (2010), *Serbia: Review of Human Resources Development*, October.

nual employer survey will be established. Besides, another regular establishment survey, in order to analyse vacancies, will be conducted in collaboration between the ministry in charge of employment, the NES and the RSO. The preliminary pilot survey will be conducted by the end of 2010 through the financial support of the ILO. These two surveys will be a valuable source of the information about occupations and skill needs and vacancies. In addition, a skill need assessment should resolve the problem of the labour market mismatches through further improvement of the planning and implementation of active labour market measures and fulfilment of occupation and skill shortages considered by the educational system.

1.5 Vulnerable groups

Some groups of the population, such as IDPs (internally displaced persons, ethnic minorities, refugees) are disproportionally hit by unemployment. The SPSI Serbia Report (2008) found that there were large discrepancies when comparing labour market indicators between IDPs and the general population on the one hand, and within IDPs on the other, i.e. between Roma IDPs (from Kosovo or returning from third countries) and non-Roma IDPs. IDPs faced lower employment rates and higher unemployment rates than the general population. Non-Roma IDPs were more likely to be employed but also more likely to be unemployed compared to the Roma. In 2009, only 28% of Serbia's Roma working age population was in employment. Roma women are more at risk on the labour market, as only 10% of Roma women of working age were employed and 68% of active Roma women were unemployed in 2009 (compared to 31.6% of the whole Roma population). More than 80% of Roma employment is in the informal sector of the economy (FREN, 2010).

Conversely, other ethnic minorities (e.g. Moslems/Bosnians in Sandzak; Hungarians, Croats and other smaller groups in Vojvodina) 'share by and large the economic and labour market position with their Serbian neighbours'. Ethnic groups tend to have different fertility rates than the Serbian population, impacting the demographic structure and labour market prospects in those regions where these minorities live (e.g. high birth rates in regions where Albanians and Bosnians live versus low birth rates in regions where Hungarian minorities live).

According to UNCT (2009) the Serbian government is implementing a number of active labour market programmes aimed at higher employability, quality of work and increased cohesion of vulnerable population groups such as persons with disabilities, Roma, persons older than 45/50, refugees and internally displaced persons (IDPs), young people and women (especially unskilled, long-term unemployed women, Roma women, IDP/refugees, women older than 45/50 etc.). See also Chapter 3.3 below.

1.6 Regional disparities

The UNCT report (2009) found that regional disparities in Serbia are among the largest in Europe and that they have further increased over the past years. Apart from the traditionally underdeveloped southern Serbia region, new regions with a low level of economic development have emerged: eastern Serbia, some parts of central Serbia, regional centres of mining and industry in western Serbia. Regional disparities were intensified as a result of the closing down of a number of large state companies, restructuring, and/or privatization, insufficient government response and weak infrastructure hindering communication, movement and lack of investments.

In Serbia, regional unemployment rates by districts – based on registration data – vary within a ratio of more than 1:3. Data obtained from the LFS record the highest unemployment rates for central Serbia (excluding Belgrade) and Vojvodina (close to 21% each in April 2010), while working conditions are better in the capital city of Belgrade, where an unemployment rate of 14% is reported (Table 18). Similarly to the NMS, labour mobility is low in Serbia. Limiting factors for the geographical mobility of the population are the high costs of the living standard outside the place of permanent residence and the inefficient housing market, but also cultural factors (Arandarenko and Jovicic, 2007).

Table 18

Unemployment by region

Year	Central Serbia without Belgrade	Belgrade	Vojvodina
2009	18.2	13.5	17.3
2008	14.7	13.9	14.2
2007	20.3	14.4	19.5
2006	25.0	17.4	18.4
2005	23.3	20.4	20.3
2004	20.5	17.6	19.3

Source: Own calculation based on RSO data, LFS 2004-2009.

Central Serbia, which was affected most by enterprise closures and restructuring, is also the region with the highest incidence of long-term unemployment, where close to 70% of the total unemployed had been out of work for more than 12 months in April 2010. In the other two regions, the share of this group is lower by about 10 percentage points (Table 19). Reasons behind the poor labour market performance in central Serbia are (i) huge job losses in manufacturing, which could not be offset by new job creation in the services sector, (ii) low investments due to poor infrastructure and thus poor access to markets, and (iii) the critical economic situation in the districts bordering Kosovo.

Table 19

Long-term unemployment[1] by region

Year	Central Serbia without Belgrade	Belgrade	Vojvodina
2009	69.5	59.4	59.6
2008	73.8	71.4	65.5
2007	81.2	84.2	77.9
2006	83.2	80.9	73.9
2005	84.0	71.8	74.1
2004	80.0	73.0	75.5

1) Unemployed persons searching for a job 12 months and more.

Source: RSO, LFS 2004–2009.

As illustrated in Table 20, youth unemployment is most pronounced in central Serbia, where the unemployment rate is 7 percentage points higher than in Belgrade. This is generally because the overall unemployment rate is higher and thus the groups that are vulnerable in the economy as a whole are even harder hit in more depressed areas.

Table 20

Youth unemployment (15-24) by region

Year	Central Serbia without Belgrade	Belgrade	Vojvodina
2009	43.5	36.7	41.5
2008	36.6	38.1	30.7
2007	44.7	44.1	41.8
2006	52.6	48.3	39.2
2005	48.9	55.8	39.6
2004	49.5	45.8	47.2

Source: Own calculations based on RSO data, LFS 2004–2009.

In order to reduce regional disparities, the government aims at providing subsidies to employers in the least and less developed municipalities, and granting additional financial support to those employing vulnerable persons based on criteria set by the government (UNCT, 2009).

1.7 Migration

Serbia has a long tradition of migration. In former Yugoslavia, guest-worker emigration was already established in the 1960s in order to alleviate labour market imbalances; thus extensive expatriate networks exist. During the 1990s, total net migration masked large gross flows in both directions. According to the 2002 census, Serbian citizens working and staying abroad totalled 414,839, which was 50% higher than in 1991. The actual number of

these persons was much larger at that time, which is also indicated by the destination countries' statistics (European Commission, 2009). In 2007, workers' and other remittances were equal to almost 10% of GDP.

Table 21 presents an overview of the extent of migration originating from the countries of South Eastern Europe into the EU-15.[12] According to these data, Albania was by far the most affected by emigration of its population, with a share of EU-15 migrants of over 20% since 2004. Migrant communities from Bosnia and Herzegovina in the EU-15 have been comparatively large throughout the 2000s, representing 7-10% of the country's population. Interestingly, the share of the Serbian population residing in the EU-15 has considerably declined, to around 6% recently. Migration from Romania and Bulgaria to the EU-15 has slightly increased to 4-5% of the population, while Slovenian nationals in the EU-15 amounted to about 1.5% cent of the country's population.

Table 21

Population from South Eastern European countries in the EU-15 by sending country, numbers, and % of home-country population

	2000	2001	2002	2003	2004	2005	2006	2007
Albania	380,978	427,682	476,055	591,120	670,646	722,022	753,266	872,064
	12.45%	*13.91%*	*15.39%*	*19.00%*	*21.45%*	*22.98%*	*23.87%*	*27.56%*
Bosnia-Herzegovina	341,737	337,591	326,663	328,512	319,676	324,897	318,786	314,885
	9.06%	*8.88%*	*8.55%*	*8.57%*	*8.32%*	*8.46%*	*8.29%*	*8.19%*
Croatia	304,066	306,452	324,005	336,967	323,121	322,001	321,335	314,881
	6.80%	*6.90%*	*7.29%*	*7.59%*	*7.27%*	*7.25%*	*7.23%*	*7.09%*
Macedonia	86,795	104,440	105,679	136,577	143,693	153,749	162,144	145,888
	4.28%	*5.13%*	*5.20%*	*6.74%*	*7.07%*	*7.55%*	*7.95%*	*7.14%*
Serbia	882,767	854,709	898,762	853,982	381,367	592,968	514,778	432,839
	11.74%	*11.39%*	*11.99%*	*11.42%*	*5.11%*	*7.97%*	*6.95%*	*5.86%*
Bulgaria	58,489	83,384	166,913	200,412	227,987	265,764	285,698	309,749
	0.72%	*1.04%*	*2.12%*	*2.56%*	*2.93%*	*3.43%*	*3.71%*	*4.04%*
Romania	180,927	230,444	283,607	461,381	602,039	764,616	930,430	1,096,664
	0.81%	*1.04%*	*1.30%*	*2.12%*	*2.78%*	*3.53%*	*4.31%*	*5.09%*
Slovenia	29,339	29,947	31,922	33,642	33,504	33,712	34,307	32,616
	1.48%	*1.50%*	*1.60%*	*1.69%*	*1.68%*	*1.69%*	*1.71%*	*1.62%*

Note: Figures are based on different data sources due to availability.

Source: National statistics, Eurostat, LFS.

In 2009, a survey was conducted by Group 484 to estimate Serbia's migration potential following EU accession (Pavlov, 2009). The survey was based on a micro-analytical model

[12] Certainly, these data do not cover total emigration from the countries concerned. Moreover, they suffer from the usual limitations of the coverage of migration by population and labour force statistics: short-term migrants are typically excluded from such data, and LFS data are not representative with respect to migration. However, we are not aware of a similarly up-to-date but more comprehensive dataset on the extent of emigration from South Eastern Europe.

applied by Fassmann and Hintermann, who used it for a survey carried out in the Visegrad countries (1996). If only asked about a general interest in migration, about 1.3 million of the population of Serbia considers working abroad. When taking into account only those who have already taken steps – at least gathered information – to realize their migration intention, the migration potential decreases to 370,000. If the potential is further confined only to those who have already submitted an application for a work or residence permit, 31,600 Serbian citizens or about 0.5% of the population over 15 years remain; this figure can be assumed to be the real migration potential.

Potential migrants are, first of all, young single persons (aged 15-39). They are highly educated and come from urban areas. Brain drain might remain/become a problem as most of them would rather integrate into the destination country than return to Serbia. About one third of the interviewed master's and doctoral students are considering leaving Serbia.

The main reasons for migration are economic factors, including employment possibility, a better paid job, career possibilities and employment in accordance with the respondents' qualifications. Persons who are more strongly integrated in Serbia in terms of education, employment, residential space and family are less likely to leave.

Only half of the potential migrants from Serbia intend to migrate to EU countries; recent statistical data indicate that the number of immigrants from Serbia and Montenegro has been decreasing in those countries lately. Respondents would like to leave for Switzerland (14%), Germany (12%), USA (10%), Austria (7%), Italy (6%), France (6%), Australia (6%), Canada (5%), Great Britain (4%), Greece (4%), Norway (4%), Spain (4%), Sweden (3%), Russia (2%), Holland (2%), Hungary (2%), Croatia (1%) and other countries.

1.8. Some effects of the crisis

The crisis has had a strong impact on the Serbian labour market. Employment declined by almost 7% in 2009 and by close to 9% in the first half of 2010. The employment and unemployment rates in 2009 were 50.4% and 16.9% respectively, while in April 2010 the employment rate fell to 47.2% and the unemployment rate accelerated to 20.1% (RSO, LFS, April 2010). In addition, a major policy instrument to secure macroeconomic stability has been the freeze on public sector wages and on pensions that has been in effect for almost two years now. Finally, the depreciating exchange rate has led to a significant correction in the euro value of wages. The government has also planned to cut public sector jobs, though this programme has not been put into practice. Other impacts of the crisis on the labour market can be detected from the figures reported elsewhere in this report. Clearly, the labour market has proved to be rather flexible in terms of the ability to both shed employment and reduce wages. However, the product market has proved to be rather rigid and has not seen a burst of entrepreneurship even though the policies have

been accommodative. The central bank has slashed the interest rate (it started to tighten in view of rising inflation rate from the middle of this year), fiscal policy has been expansionary, and subsidies have been relatively generous. However, labour market policies have been rather unimaginative and also under-funded.

The effects of the crisis will be felt for some time, given that growth prospects are not altogether optimistic. The decline of GDP has been moderate, but recovery has been sluggish, too. Compared to other economies in the region, the GDP performance has probably been better, but the drop in employment has been much more serious. This is primarily because growth depends mainly on domestic demand, which has been rather stagnant. What is more important is the government's understanding that growth in the medium term needs to be based on expanding exports and on subdued domestic demand. As Serbia exports little, it will take a while until expanding exports trickle down to the rest of the economy and support strong GDP growth, which is important for the rebound in employment. Thus, the labour market may remain depressed for some time. In addition, the crisis has uncovered significant deficiencies in the labour supply, and major reforms will be needed in skill acquisition and distribution. Finally, it has become apparent that the system of taxation is not conducive to either increased employment or skill acquisition. Thus, a major tax reform will be needed in order to induce an increasing demand for labour.

Conclusions

To recapitulate, the Serbian labour market is characterized by low employment and activity rates, particularly for women and young people. Unemployment has been a serious problem throughout transition, particularly for those with secondary education. This indicates the weaknesses of the secondary educational system in adapting to the needs of the labour market, but also the obsolete skills of the high percentage of long-term unemployed. In general, the educational attainments of the workforce have changed only marginally over recent years. Young people are affected disproportionately by unemployment, with even those holding college or university degrees being hit hard. The apprenticeship programme 'First Chance' launched by the government in 2009 in order to combat youth unemployment is showing first positive results: since mid-2009 the number of young people registered at labour offices has been on the decrease. Other groups heavily affected by unemployment are internally displaced persons, ethnic minorities (Roma women in particular) and refugees. Regional disparities widened during transition. Central Serbia, where many jobs were lost in manufacturing in the course of restructuring, has been hardest hit by unemployment, exhibiting the highest share of long-term unemployment and heavily affected by youth unemployment, while the capital city of Belgrade is best positioned. Labour mobility, as everywhere in Europe, is very low in Serbia. By contrast, Serbia's (outward) migration is very high and remittances constitute an important share of income. Brain drain has become an important issue in recent years. In the pre-crisis years, wages started

to increase faster than productivity especially in the public sector. The crisis changed that as employment declined stronger than economic activity and wages stagnated or even declined in real terms. That has led to an improvement in overall competitiveness of the economy and of the labour intensive industries and services too. This should have positive effects on the labour market developments once recovery strengthens and investments increase.

Informal sector employment, which has been traditionally high in Serbia, even increased during the past decade, with a rising share of older workers, better educated persons with secondary education or more, self-employed persons and unpaid family workers.

The crisis had a strong impact on the Serbian labour market, which was reflected in rising unemployment and declining employment rates of young people in particular. At the same time, inactivity increased. The sectors most affected by the crisis were agriculture, trade, construction and manufacturing. The impact of the crisis was highest for workers with low and medium levels of education, while employment of the highly skilled continued to grow.

2 Subsistence agriculture in Serbia

2.1 Definition of the term

Subsistence agriculture is non-specialized, self-sufficiency farming in which farmers grow a range of crops and animals in order to have enough food to feed their families. Planting and breeding decisions are made in line with the family's need during the coming year, disregarding market prices. Semi-subsistence agriculture is the production of a marginal surplus of certain crops or animal products that are sold for cash, dependent on the distance of the market.

Semi-subsistence farmers, who sell a marginal part of their own production, benefit from higher prices for their own agricultural surpluses. But at the same time they suffer from higher prices for their cash purchases of food that they have not produced themselves. In addition, traditionally, if agricultural prices are higher, prices for agricultural inputs (such as seeds, fertilizers, pesticides, fuels) are also higher. And so the whole cash or income balance depends on the weighting of individual revenue and expenditure components (i.e. relative prices or terms of trade).

2.2 Importance of subsistence agriculture

As in other Central and Eastern European states, in Serbia subsistence and semi-subsistence agriculture reappeared within the transition economy around 1990. However, even prior to 1990, non-market-oriented farming played an important role in the rural areas.

Subsistence agriculture gained importance as a natural consequence of the process of economic transition coupled with the restructuring and shortening of the economy.

According to the Agricultural Census conducted in 2002, there were 779,000 farms registered in Serbia with an average used agricultural area (UAA) per farm of 3.7 hectares[13]. Farmers have been facing land fragmentation, with a single farm comprising four individual parcels on average. Nearly half of the total are small plots (with an average size of 1 hectare) mostly operating in subsistence or semi-subsistence farming. In addition, there are around 400 formerly state-owned farms with an estimated average size of 1500 hectares[14], now largely operating as joint-stock companies or cooperatives and producing solely for the market. In addition, medium-sized private farms have been emerging at an accelerated pace.

Table 22

Serbia: Indicators for agriculture, 2008

	Bulgaria	Romania	Croatia	Macedonia	Serbia
Country area, total, in ha mn	11.099	23.839	5.659	2.571	8.836
Population, average					
total persons mn	7.6	21.5	4.4	2.0	7.4
of which rural population, persons mn	2.2	9.7	1.8	0.8	3.2
in % of total population	28.9	45.0	40.1	40.2	43.6
Employment in agriculture [1)]					
persons mn	0.7	2.7	0.2	0.1	0.7
in % of total employment	19.3	28.8	13.6	19.7	25.2
Agricultural area					
ha mn	5.101	13.717	1.282	1.083	5.093
% of total	46.0	61.8	22.7	42.1	57.6
ha/capita	0.669	0.657	0.289	0.529	0.693
ha/employed	6.9	5.1	5.8	9.0	7.2
Gross domestic product					
EUR bn at exchange rate	34.1	139.8	47.4	6.5	33.4
per capita (EUR at exchange rate)	4,500	6,500	10,700	3,200	4,600
per capita (EUR at PPP)	10,400	12,000	15,500	8,200	9,000
Average share of household income spent on food % [2)]	36.6	41.7	32.1	40.4	40.3

1) According to LFS; Bulgaria SNA. - 2) Including non-alcoholic beverages.

Source: wiiw Database incorporating national statistics.

[13] Z. Lukas and J. Pöschl (eds), 'Perspectives of EU accession of the Balkan countries Albania, Bulgaria, Bosnia and Herzegovina, Croatia, Macedonia, Romania, Serbia and Montenegro plus Turkey: Consequences as feasible for Austria's agriculture and food industry', commissioned project No. 1402 for the Lebensministerium, Vienna, July 2007.

[14] Danmarks Ambassade Beograd, Report on Agriculture, 22 October 2009.

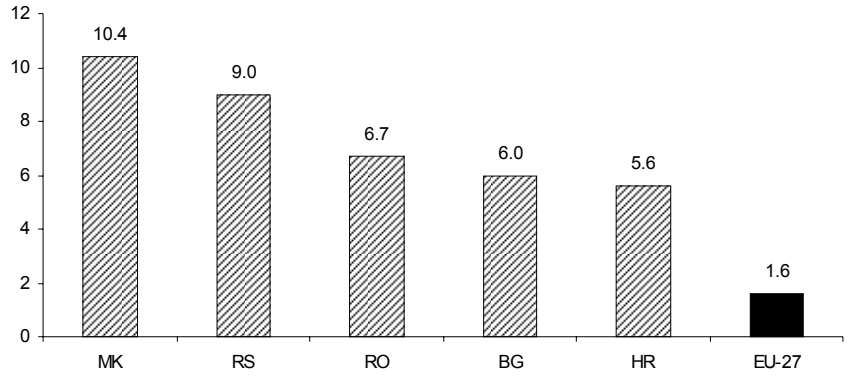
2.3 Agriculture: a big employer

Like the other Balkan states, Serbia is a country in which agriculture has played a very important role in the economy. The sector accounts for around 10% of GDP and employs one quarter of the labour force in the country (Figures 6 and 7). The resulting labour productivity in agriculture is low, although it has been rising in recent years. The agricultural sector is facing many deficits. The most important of these are the fragmented farm structure, as a large number of very small agricultural units have predominantly produced only a small volume of surplus for the market.

Figure 6

Importance of agriculture in the economy, 2008

Share of agriculture in total GDP, in %

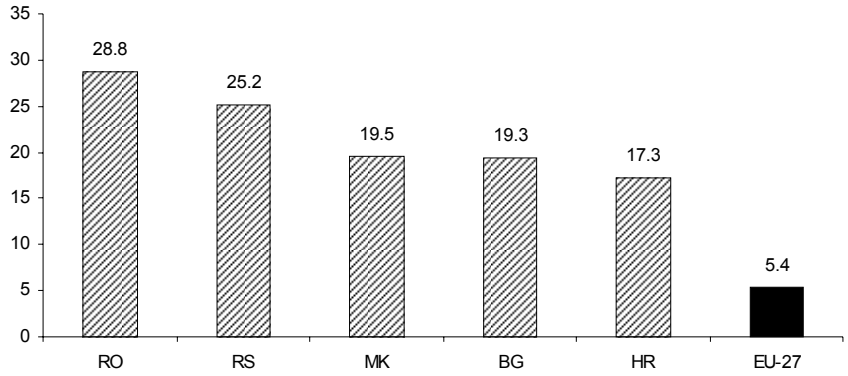


Source: wiiw Database incorporating national statistics, Eurostat.

Figure 7

Importance of agriculture in the economy, 2008

Share of agriculture in total employment, in %



Source: wiiw Database incorporating national statistics, Eurostat.

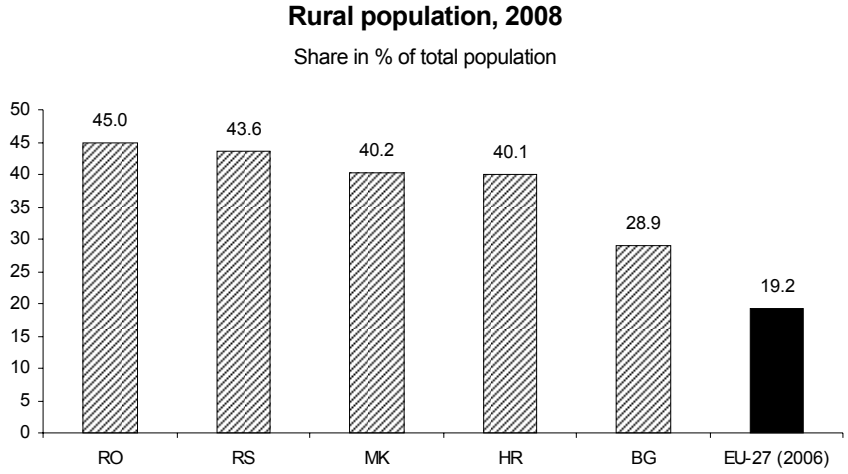
Certainly, the fragmentation of land ownership is historically related to the law of succession in Serbia permitting all entitled successors to gain a small plot of shared agricultural land. In addition, the agricultural land market is not functioning, mostly due to a lack of

funding, a lack of price information and hesitance on the part of landowners. Furthermore, low levels of mechanization and the limited use of modern technologies have undermined agricultural efficiency and labour productivity. The outcome of this is over-employment in agriculture.

2.4 Social buffering effects

However, high agricultural employment has eased the precarious situation on the labour market, which is fighting high unemployment. The fact that a large number of persons are employed in some form of agriculture has saved social transfers of the state and so is contributing to budgetary relief. In addition, the agricultural sector provides a social safety network in the countryside for the bulk of the rural population. Especially elderly persons have no alternative source of income and sometimes have fully depended on subsistence farming to survive[15]. Serbian agriculture, which includes over half a million agricultural producers and family workers, has contributed considerably to rural development and to maintaining life in the countryside. 96% of persons engaged in agriculture have been living in rural areas. However, the genuine figure of people engaged in farming, including all forms of subsistence and semi-subsistence farming, has been definitely higher than officially reported, as very often these persons are very difficult to define, especially those related to family workers.

Figure 8



Source: wiiw Database incorporating national statistics, Eurostat.

As a matter of fact, over the transition period and in the course of the current economic crisis as well, agriculture has acted as a buffer in the labour market. The sector has absorbed a high share of the country's total active population, as workers laid off from secon-

[15] Study on the State of Agriculture in Five Applicant Countries, Country Report Serbia, December 2006, financed by the European Commission.

dary and tertiary sectors in urban areas are temporarily coming back to their parents or grandparents in the villages. Some of them operate in commercially oriented agriculture driven by family businesses, cooperatives and other corporations. These large-scale farms are located in the very fertile plain of Vojvodina (North Serbia) and have traditionally produced particularly grain and soybeans.[16]

However, the bulk of jobless people willing to work in agriculture have been active in semi-subsistence or subsistence agriculture in the hill and mountain regions of central and southern Serbia, where the climate and soil conditions are too poor for market-oriented farming. They consider this a temporary solution for survival before finding a job, preferably again in the urban area. As a result, these temporary agricultural workers do not ease the depopulation of rural communities, but tend to return to the cities. The contraction process is accelerating more and more and is aggravated by population aging in the countryside. Especially some of southern Serbia's more remote rural areas have been threatened with the extinction of rural communities.

2.5 Agricultural exports supported by subsistence farmers

Unlike other Western Balkan states, Serbia is the sole country in the region with an export surplus in the agro-food trade. In the last couple of years, agro-food exports have accounted for around 20% of total Serbian exports, while imports of agro-food products comprise only 6-8% of total imports. Fruits (mostly berries, apples, plums, grapes and cherries), vegetables (chiefly mushrooms, peas, peppers, potatoes and onions), grain, edible sunflower oil and animal products (especially baby beef) dominate in exports. Because the harvest of fruits and vegetables targeted to exports is very labour-intensive, this process employs a huge number of persons in the countryside at harvest time, easing the tension on the labour market.

The bulk of persons engaged in fruit and vegetable production have been recruited from subsistence and semi-subsistence agriculture. Prominent positions among export goods are held by the famous Serbian raspberries, blackberries and wild strawberries and blueberries. Wild fruits are traditionally processed in households, especially in the hill and mountain regions of central and southern Serbia. Demand for Serbian fruits is growing, as the bulk of exports goes to the EU. A major part of the export goods comply with the EU's health standards such as Hazard Analysis and Critical Control Point (HACCP). That opens the door to new outlets outside the EU as well, such as the USA.

[16] Prior to World War I, Vojvodina used to be the main granary of the Austro-Hungarian monarchy.

2.6 Labour-intensive milk sector

The milk sector as an important employer is very labour-intensive and is one of the most important animal sectors in Serbia. With around 260,000 workers, the milk sector employs nearly half the people engaged in Serbian agriculture.[17] That includes subsistence and semi-subsistence farmers who have sometimes only one milk-cow to feed their own family. The milk sector in Serbia has a typical dual structure. While subsistence and semi-subsistence farmers produce half of the total Serbian milk output for self-sufficiency and for local markets as well, highly market-oriented milk farms deliver to the dairy processing companies, which produce the final palette of dairy products for the wholesale and retail trade industry. Backed by comparative advantages, the dairy sector will be of fundamental importance to both the agriculture and the rural areas of Serbia in the future as well.

2.7 Subsistence farming fighting poverty

Especially during the Milosevic era, poverty[18] had increased and affected above one third of the total population[19]. Not only at that time but also until the present day, households with many dependent family members in urban areas, where the family head is an industrial worker or jobless, have been threatened with poverty. There is clear evidence that persons living in urban areas are less resistant against absolute poverty[20] than those living in rural areas. Indeed, in rather less developed transformation countries, the subsistence and semi-subsistence farming operating in rural regions has been the central instrument fighting against poverty and lessening social turmoil in society.

Nevertheless, the whole issue appears to be a paradox because a part of the urban jobless persons, despite living below the absolute poverty line, are not prepared to move to rural regions. Even when laid-off city workers or their family members have parents, grandparents or relatives owning land suitable for agriculture and horticulture, they have remained in the city, dependent on very low social transfers from the state and being supported by other better-situated relatives.

As a matter of fact, the bulk of the urban population that is adversely affected by a scarcity of money has preferred the life of big cities and has consequently accepted poor living conditions. In addition, the quality of life for the bulk of the urban population facing poverty in Serbia involves many hardships such as poor urban infrastructure, expensive rental

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[17] Dairy Sector Study for the IPARD programme, FWC Beneficiaries 2009 LOT 1: Rural Development Europe Aid/127054/C/SER/multi, 2009.

[18] The poverty line has been defined as a per capita income of USD 2 per day.

[19] Republic of Serbia: Agricultural Sector Review, final report, January 2003, p.12.

[20] The asolute poverty line has been defined as a per capita income of USD 1 per day.

flats, congested roads and poor public transport systems. Despite all this, poor people in the cities consider urban life as having a higher social status than life in the countryside

Conclusions

To recapitulate, subsistence and semi-subsistence (mostly self-sufficient) agriculture in Serbia plays an important role in the rural region. The lack of mechanization and modern technologies has resulted in low productivity and in over-employment in all forms of agriculture, including subsistence farming. However, high agricultural employment has eased the precarious situation on the labour market, which is fighting high unemployment. The fact that a large number of persons are employed in some form of agricultural activities has saved social transfers of the state and is consequently contributing to budgetary relief. In reality, the agricultural sector provides a social safety network in the countryside for the bulk of the rural population. As a matter of fact, over the transition period and in the course of the current economic crisis as well, subsistence agriculture in Serbia has acted as a very significant buffer against unemployment.

3 Labour market policies: an overview

In 2010, the priorities of the labour market policy in Serbia were determined by the National Action Plan for 2010. The labour market policy for 2010 rests on three main pillars: (i) the creation of new jobs, decreasing the effects of the economic crisis on current jobs and increasing formal employment; (ii) improvement of social inclusion and equal access to the labour market; and (iii) development of human resources. Within the first group of policy priorities, emphasis was given to the fostering of employment and the prevention of unemployment, the employment of young people, strengthening the capacities of the labour market institutions, the role of social partners and regional collaboration of countries, and supporting the reduction of regional differences. Within the second group of priorities, two subsets of policies were distinguished through the implementation of support measures to achieve the equal status of women and men on the labour market on the one hand and social inclusion and employment of persons with disabilities and other vulnerable groups (refugees and IDPs, minorities, beneficiaries of social assistance and the like) on the other hand. The third set of policies entitled ‘development of human resources’ incorporated the organization training programmes for the unemployed in order to fill short-term labour market needs, the promotion of LLL, the enhancement of institutional capacities and the like. The priorities of labour market policy for 2010 were implemented in concrete labour market measures supported by a budget of about RSD 10 billion (MoERD, 2010).

Besides policies envisaged to foster the employment of young people and persons with disabilities, there are policies that make the equality of genders a priority, that is, with the

objective of having women constitute at least half of the users of active labour market measures. Direct support for the higher employment of women is provided by fostering women's entrepreneurship and self-employment, fostering unemployed women who are in the category of women with difficulties in finding employment (such as young women, uneducated women, women with disabilities, Roma women, women victims of trafficking and the like) and by promoting flexible forms of employment that will facilitate the harmonization of business and family life (time sharing between job and family obligations) and creating possibilities for better social inclusion of unemployed women. Implementation of these policies will be continued in 2011 as well (MoERD, National AP of Employment for 2011, 2010).

In 2011 the Serbian government will introduce the new Employment Strategy for the period 2011-2020. The priorities set in the draft strategy include supporting the model of new economic growth of the national economy, supporting the labour force in the economic sectors with unfavourable perspectives, increasing the employability of vulnerable groups and strengthening the institutional framework in order to decrease differences in the labour market indicators between Serbia and EU. The new strategy particularly emphasizes the implementation of active labour market policies, as opposed to passive policies, through higher expenditures for active labour market measures, better targeting of potential beneficiaries and the fostering of programmes of additional education and training. Parallel to the strengthening of active labour market policies, emphasis will be given to education in order to improve the labour force supply. This is particularly important because of the forecasted decrease in the labour force until the end of 2020

3.1 Institutional set-up

The institutional framework of the labour market in Serbia is determined by several strategic documents and laws (see Table 23). The first comprehensive document, the National Employment Strategy[21], which determined labour market policies and strategic goals to be achieved up to 2010, was adopted in 2005. From 2005 to mid-2007, labour and employment were the responsibility of the Ministry of Labour, Employment and Social Policy. In 2007 those two issues were separated and are now the responsibility of two ministries: the Ministry of Labour and Social Policy and the Ministry of Employment and Regional Development.[22] The National Strategy of Employment is harmonized with the European Employment Strategy so that the national strategy follows three main goals of the 2000 Lisbon Strategy: full employment, quality of work and productivity, and social cohesion and labour market inclusion. The National Strategy identified ten action priorities created according to the 2003 EC Directives and two specially adjusted priorities for the needs of the Serbian labour market.

[21] Government of the Republic of Serbia (2005a).

[22] More on institutional changes since 2000 and responsibilities of different ministries regarding employment and labour issues is provided by Arandarenko and Krstic (2008).

After the Strategy was adopted by the government, the ministry in charge of employment proposed an action plan for the implementation of the Strategy. Since 2008, when the action plan expired, the measures that followed the implementation of the Strategy were transferred to the annual programmes for the implementation of labour market policies.

Table 23

Principal strategic documents and legal framework for employment issues

Documents	Description
National Employment Strategy for the Period 2005-2010	Government of the Republic of Serbia, Ministry of labour, employment and social policy - introduced in 2005 (last year of implementation)
Strategy of Changes of the National Employment Service from 2006 to 2008	National Employment Service - introduced in 2005 (expired)
National Action Plan of Employment for the Period 2006-2008	Published in *Official Gazette of the Republic of Serbia,* no. 45/05 - introduced in 2005 (implementation has expired and been replaced with the new annual programme of employment)
Programme of Active Policy of Employment for 2009	Government of the Republic of Serbia, Ministry of Economy and Regional Development - introduced in March 2009 (replaced with the new annual action plan)
National Action Plan of Employment for 2010	Government of the Republic of Serbia, Ministry of Economy and Regional Development - introduced in February 2010 (under implementation)
Law on Employment and Unemployment Insurance	Published in *Official Gazette of the Republic of Serbia,* no. 71/2003; 84/04; 36/2009 - the law was adopted in 2003 - the new law was introduced in May 2009 (the law regulates activities of the MoERD and the NES)
Law on Professional Rehabilitation and Employment of Persons with Disabilities	Published in *Official Gazette of the Republic of Serbia,* no. 36/2009
Law on Contributions for Obligatory Social Insurance	Published in *Official Gazette of the Republic of Serbia,* no. 84/04; 61/05; 62/06
Law on Evidences in the Labour Area	Published in *Official Gazette of the SR of Yugoslavia,* no. 46/96; 101/05

The Strategy of Changes of the National Employment Service from 2006 to 2008 (NES, 2005) rested upon four main pillars: orientation towards the clients, decentralization, development of monitoring and evaluation, and development of an appropriate system of labour market information.[23] Within the period of implementation of reforms of the National Employment Service (NES) determined by the Strategy, no major changes were completed.

[23] Within the EAR Project 'Employment Support Programme', a functional analysis and overview of changes in the NES was conducted (EAR, 2006). One of the main conclusions was that the NES was strongly centralized and that it should

In retrospect, one could conclude that the major transformations proposed by the Strategy have been initiated but not yet accomplished. The NES significantly improved its approach and technical conditions regarding its orientation towards clients. The NES has a network of branch offices (at the regional and municipality level) all over Serbia, but the main functions are coordinated by the Central Office. The Central Office, located until now in Belgrade, is to move to a new location, the city of Kragujevac. Regarding the development and implementation of the system of monitoring, evaluation and labour market information, the NES started with some activities (bought equipment, trained some highly positioned staff) which are still not sufficient for a significant improvement of the system in both the central office and the branch offices. NES reporting of data has significantly improved since the beginning of 2009. The data breakdown foresees several main categories such as age, gender, region, category of service, duration of unemployment, labour market status, tenure, first-time job seekers, etc. It has been recommended that the technical capabilities of the staff and the level of productivity be further improved. The NES still has to improve the system of monitoring and evaluation, and it is necessary to develop an appropriate system of labour market information. The decentralization of the system of decision-making, particularly in relation to the implementation of labour market policies at the local level, needs to be developed further.

The set of laws that regulate employment issues was supplemented significantly during 2003–2009. The new Law on Employment and Unemployment Insurance was adopted first in 2003[24] and then in 2009 the existing law was supplemented by significant changes so that it could be considered a new law on employment. Under the 2009 Law, the principal instrument for the implementation of the activation policies is the Action Plan of Employment, which is harmonized with the National employment strategy. The Action Plan of Employment is an annual document, the implementation of which is intended to result in rising employment and decreasing unemployment in order to successfully meet the goals determined by the Strategy. In particular, in the Action Plan for 2010, significant assistance in finding employment is given to the discouraged categories of the unemployed. The implementation of the Action Plan is followed by annual reports prepared for the government, for which the ministry in charge of employment is responsible. The main changes in the two laws on employment with regard to the implementation of labour market policies are given in Boxes 4.1 and 4.2 on passive and active labour market policies in Serbia. Additionally, the Law on Professional Rehabilitation and Employment of Persons with Disabilities is intended to mitigate the difficulties with employability experienced by persons with disabilities[25] and stimulate em-

be more decentralized. Additionally, it was found that the NES suffered from constraints such as a lack of human and technical resources. The recommendation was to decentralize the system of decision-making and authorize the managers to make decisions, which would allow better usage of the potentials they have at their disposal.

[24] Changes in the regulation of employment and unemployment insurance before and after the introduction of the new Law in 2003 are pointed out in the World Bank Report on labour market assessment for Serbia (2006).

[25] On the difficulties of persons with disabilities in finding employment is due to high inactivity, see, for instance, Fren (2010). Particularly women, poorly educated persons and persons in middle age groups have difficulties not only in finding jobs but also in searching for them.

ployers to engage this category of the unemployed. The implementation of this law has had some effect.

During the first nine months of 2010, 3,413 persons with disabilities found employment (out of 18,118 persons with disabilities who were registered as unemployed persons actively searching for a job at the beginning of 2010). The small number of persons with disabilities registered at the NES is the result of the unfavourable educational structure and the inappropriateness of working places for persons with disabilities (RSO, 2008). Those are main obstacles to the faster employment of persons with disabilities. According to the law provisions (which have been in place since May 2010), every employer with 20 to 49 employees has to engage at least one person with a disability.[26] The number of employed persons with disabilities increases by one person per each additional 50 employees. If employers do not hire persons with disabilities, whatever the reasons may be, they have to pay penalties specified at the level of the threefold minimum wage for every person with a disability. These penalties are foreseen to be paid monthly over the period during which the employer does not meet the provisions of the law with regard to employing the prescribed number of persons with disabilities. From this it could be concluded that the new law is rigid and that the penalties for disregarding the law provisions are serious, but still it is hard to draw any further conclusion about the effectiveness of the law other than those regarding the number of persons with disabilities who have been employed during the several months of implementation of the new law.

In addition, physical barriers and the impossibility of reaching working places very often constitute additional difficulties in the employment of persons with disabilities. There is no data on the employment of persons with disabilities broken down by the sector of ownership. But due to the downsizing of the public sector and state administration, it is obvious that so far, employed persons with disabilities have found jobs mostly in the private sector. In the future, the employment of persons with disabilities in the public sector will be fostered as well, in particular by using wage subsidies for new jobs (MoERD, 2010).

3.2 Labour taxation

The total tax burden on labour is 47.8%. This rate incorporates the tax on wages and obligatory social contributions. The tax on wages is 12% (effective from 1 January 2007). According to the Law on Obligatory Social Insurance Contributions, Serbia's system of

[26] Previously, the NES fostered the employment of persons with disabilities through active labour market measures, such as subsidies for compulsory social insurance contributions and new employment of persons with disabilities, including subsidies for facilities that had to be installed at working places for those persons. In 2009, only 388 and 93 persons with disabilities involved in the programmes of subsides for new employment and social contributions, respectively, were employed (NES, 2009). In addition, a small number of persons with disabilities involved in other programmes found jobs, for example through additional education and training (21), active job searching (52) and job fairs (128).

taxation includes the following obligatory social contributions: (i) pension and disability insurance (11%), (ii) health insurance (6.15%) and (iii) unemployment insurance (0.75%). Social insurance contributions are paid in equal portions by employers and employees. Hence, the total obligatory social insurance contributions paid on gross wages account for 35.8%. The costs of gross wages due to the high tax burden are usually the subject of employers' complaints.[27]

According to the policy instruments and regulations shown in Table 11 above, the Ministry of Economy and Regional Development has been proactive in the creation and updating of policies and in the adoption of new legal acts.

3.3 Administrative capacities

3.3.1 Ministry of Economy and Regional Development

The Ministry of Economy and Regional Development (MoERD) of the Republic of Serbia[28] is responsible for the creation of labour market policies through the Employment Department. The Employment Department has 16 employees[29], mainly legal specialists and economists, who work in three units: (i) the legal unit, which deals with legal issues; (ii) the unit for the creation and monitoring of the implementation of active labour market policies; and (iii) the IPA unit, which coordinates activities and large projects financed through EC funds. The MoERD coordinates and supervises the implementation of labour market policies, which is the main responsibility of the National Employment Service (NES). Hence, the MoERD and the NES are the main institutions responsible for labour market policy in Serbia. Special attention is given to the administrative capacities of the NES in the following section, in order to describe the implementation of labour market policies in Serbia in more detail.

The responsibilities for employment and labour protection legislation are divided between two ministries. While the MoERD is responsible for and coordinates policies related to employment and the functioning of a part of the labour market instruments (implemented through passive and active measures), the Ministry of Labour and Social Policy (MoLSP) is responsible for the implementation of the Labour Code and issues such as workers' protection, minimum wage, labour inspections, informal employment, collective agreements, etc. In accordance with its functions, the MoLSP is more involved in the work of the Socio-Economic Council (see also 3.3.2). The main sub-policies of the two ministries are related. For instance, the minimum wage set by the Socio-Economic Council is the basis for de-

[27] See, for instance, FIC's White Book (2008, 2009); World Banks' Doing Business Report (2009), etc.

[28] The Ministry of Economy and Regional Development in its actual capacity was established after the parliamentary elections in 2007. More about the institutional set up and the responsibilities for the implementation of labour market policies from 2000 to 2007 is given by Arandarenko and Krstic (2008).

[29] The data on the number of employed within the Ministry corresponds to the first quarter of 2010.

termining the level of unemployment benefits, which is an instrument at the disposal of the MoERD in order to pursue its employment policies, which are then administered by the NES. However, it should be stressed that such an institutional framework requires more accurate coordination between the aforementioned two ministries, in particular between the ministries' departments for employment and labour.

3.3.2 Inter-ministerial collaboration

The Employment Department of the MoERD coordinates its work on the main issues of employment with two other ministries, the MoLSP and the Ministry of Education (MoE). However, that collaboration is not always at a satisfactory level. For instance, the collaboration between the Employment Department of MoERD and the Labour Department of the MoLSP was not at a satisfactory level in the consultative phase of the process of introduction of the Law on Volunteers, or even when amendments to the Labour Code were introduced. On the other hand, there is satisfactory exchange of suggestions with the sections of the MoLSP responsible for security and protection at work, gender equality, social protection of persons with social assistance needs due to activation of the unemployed beneficiaries of social protection through measures of active labour market policies, etc. Also, the Employment Department has very good collaboration with the MoLSP's sector for protection of persons with disabilities. These two sectors worked closely on the adoption of by-laws needed for the implementation of the new Law on Professional Rehabilitation and Employment of Persons with Disabilities. The Employment Department of the MoERD is included in the activities of the MoE that are related to the adoption of the national framework of qualifications and the improvement of quality in education. Also, the representatives of the MoERD's employment department are part of the working groups for the creation of the draft law on adult education; they are also part of the Council for Vocation Education, etc. All these activities are supported by the IPA components.

MoERD leads the process of drafting the National Employment Strategy for the period 2011-2020. Besides the experts involved in the creation of the strategy, different steps in the development of the strategy are discussed by a working group. The draft of the strategy is to be discussed in December 2010 and the final document is expected to be adopted by the government in 2011. The working group consists of the social partners: representatives of the government (relevant ministries MoERD, MoLSP, Ministry of Finance), the NES, Social Inclusion and Poverty Reduction Focal Point, the RSO, Serbian Import and Export Promotion Agency, representatives of the employers' organizations (Serbian Chamber of Commerce), representatives of the trade unions, the Standing Conference of the Towns and Municipalities, and representatives of NGOs dealing with youth employment.

The National Employment Strategy for the period 2011-2020 is harmonized with the EU 2020 Strategy. Flexicurity issues are a very important part of the new strategy. In particular,

priorities related to flexicurity are the assurance of secure jobs, the assurance of adequate working conditions as guaranteed by the Labour Code, promotion and development of the lifelong learning concept, development of effective active labour market policies (implementation of active labour market measures accessible to individuals who desperately need this kind of support), and the introduction of the new concept of social protection that combines working and private (family) duties in the best possible way. Implementation of this strategy requires additional changes in labour regulation, particularly in the Labour Code, and regulation that prevents abuse in the workplace. Currently, the Labour Law adopted in 2005 is under revision and it is expected that the flexicurity issues will be incorporated into the new law in accordance with best EU practice. The MoLSP is in charge of the revision of the Labour Code. On the other hand, the Workplace Violence Prevention Act was adopted in May 2010. This act protects workers against all kinds of violence related to the working place or work in a broader sense. Hence, the effective implementation of the new strategy will require adequate support of the regulation that will be ensured by adoption of amendments of the current Labour Code.

The MoLSP plays an important role in the functioning of the Socio-Economic Council, which is a legally established tripartite body equally represented by the government, unions of employers and trade unions. One of the main tasks of the nationally established council is the supervision of the draft laws and by-laws that are important for the regulation of the economic and social status of both employees and employers. In that sense, the role of the MoLSP and consensus with the social partners are crucial for adoption of the new labour regulation. The National Council has 18 members. Moreover, socio-economic councils, according to the Law on Socio-Economic Councils, may be established at the level of the province of Vojvodina and at the level of local governments. Members of the councils are local authorities and local representatives of the trade unions and unions of employers. The main purpose of the establishment of the councils, both at the national and local levels, is the development of social dialogue. The capacities of the local socio-economic councils are rather weak. Out of 28 established local councils, only 10 are active. The main reason for the inactivity of the local socio-economic councils is the low involvement of the local authorities (ETF, 2010).

3.3.3 Collaboration with private employment agencies

The MoERD is also responsible for the establishment of private employment agencies and for the supervision of their work. The establishment of private employment agencies was introduced by the 2003 Law on Employment and Unemployment Insurance. In the first quarter of 2010 there were 57 private employment agencies in Serbia. According to the new legislation on the obligation to provide information, the private employment agencies are obliged to prepare semi-annual reports for the MoERD on their work, regarding the number of job-seeking persons who are registered at the agency, the number of job placements, and the number of vacancies. The Law on Employment and Unemployment

Insurance foresees collaboration between the NES and the private employment agencies. That collaboration is mainly realized through the exchange of information on labour brokerage. The collaboration between them in the area of employment of Serbian citizens in foreign countries is regulated by law. As of April 2010, the NES had signed 39 agreements on collaboration with private employment agencies and nine non-governmental organizations.

3.3.4 Collaboration with social partners

The Employment Department of the MoERD collaborates with the social partners on employment policies. This collaboration can be divided into two parts. First, the obligatory part is initiated by the Employment Department and it is usually related to policy settlement and testing and changing of the regulatory framework. The second part of the collaboration is initiated by the social partners (associations of employers and trade unions) and this part is realized through the organization of round tables all over Serbia. These activities are supported by the ILO and other donors. Two well-represented examples of this collaboration are the joint work on the preparation of the Law on Professional Rehabilitation and Employment of Persons with Disabilities and public discussions on the suppression of the grey economy. Additionally, in the creation of the programme of labour market policies for 2010, the social partners contributed to the adoption of the final set of measures. Before the programme is handed over to the government for adoption, the draft programme prepared by the Employment Department of the MoERD is sent to the Socio-Economic Council for final consultation and discussion.

3.4 National Employment Service

The National Employment Service is a state-owned agency under the supervision of the Ministry of Economy and Regional Development. The NES was established in 2003 by the Law on Employment and Unemployment Insurance; the NES replaced the Labour Market Bureau, which was introduced by the 1992 Law on Employment and Accomplishment of Rights of Unemployed persons as a modern institution of the labour market. Three main functions at that time were (i) the creation of preconditions for employment; (ii) the adjustment of supply and demand on the labour market; and (iii) care for the respect of the rights of the unemployed. The set of NES functions, determined by the 2009 Law on Employment and Unemployment Insurance, has been extended so that the main tasks are: (i) supporting employment; (ii) administration of contributions/insurance in the case of unemployment; (iii) realization of the legal rights of the unemployed induced by insurance in the case of unemployment as well as all other rights determined by the Law; (iv) creation of labour market records.

3.4.1 Principal functions

The Statute of the NES (2009) determines the scope of work in detail, the principal functions, managing functions (director and managing board) and everything else regulated by law. The Statute foresees the following principal tasks of the NES:

- provision of information about possibilities and conditions of employment;
- implementation of labour market policies (such as job brokerage, professional orientation, career guidance and counselling, subsidies, support for self-employment, additional education and training, stimulus for unemployment beneficiaries, public works and other measures that supports employment);
- issuing of work permits for foreign citizens;
- realization of the legal rights induced by insurance in the case of unemployment;
- administration of unemployment benefits;
- creation of records;
- employment in foreign countries;
- legal protection of persons intending to find jobs in foreign countries;
- making decisions on the assessment of the working ability of persons with disabilities;
- employment stimulation for persons with disabilities;
- professional rehabilitation of persons with disabilities;
- other tasks determined by the Law on Employment and Unemployment Insurance (such as other financial intermediation, data processing, obligatory social protection).

3.4.2 Management

The NES has two top management functions: the Director and the Managing Board. The director of the NES is appointed by the minister in charge of employment, while the Managing Board is appointed by the government. The Managing Board of the NES has nine members, who represent state institutions, employers and trade unions.

Capacities of the NES

Sufficient and well-trained staff as well as adequate financial resources are essential for the effective and efficient performance of PES tasks. As in most countries in the region, the Serbian NES is understaffed and overloaded. Thus, the capacity is still a long way from the service level required to cope with the current challenges of increasing unemployment and skills mismatches. The NES is still poorly equipped in comparison with EU countries and short of both financial and human resources.

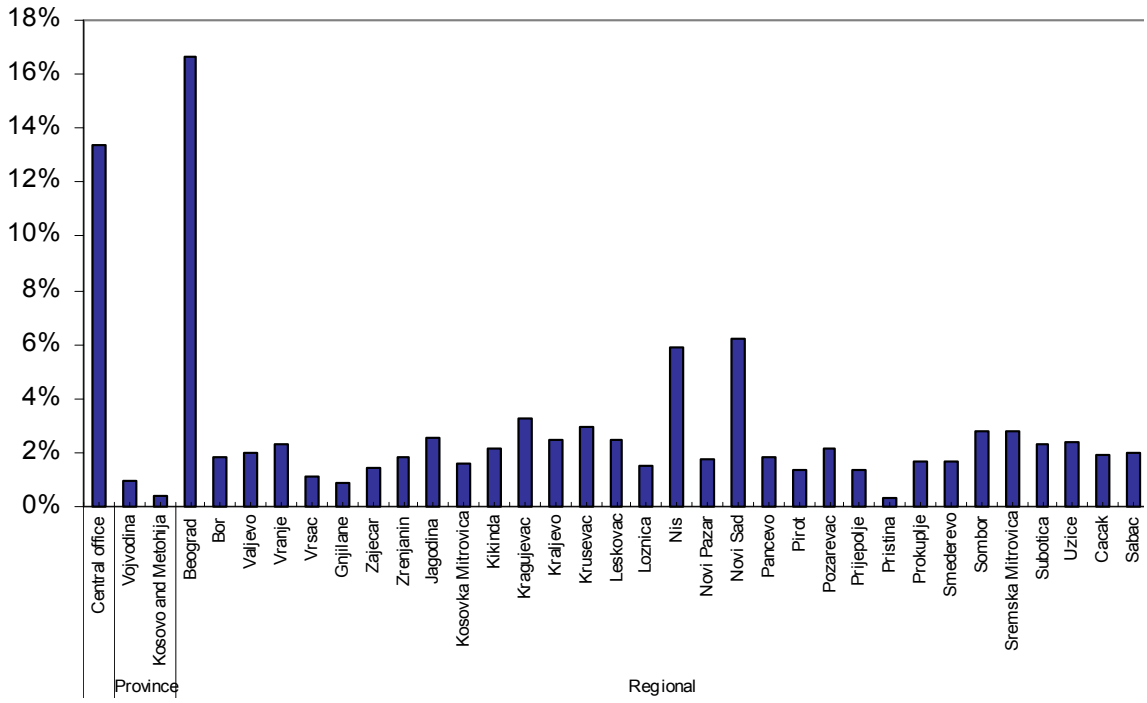
In the first quarter of 2010, the NES had 1780 permanently employed staff members. In the last quarter of 2009, the number of NES employees had been 1990, but this number was

reduced due to the implementation of the Programme of Redundant Labour Rationalization in the public sector. The rationalization of the number of employees in the NES started in the fourth quarter of 2009 in accordance with the Law on the Determination of the Maximum Number of Employees in the State Administration. Since the implementation of the regulation, the main functions of the NES have not been affected. This is illustrated by the distribution of the NES employees, including both central office and local branch offices, engaged in the main functions, such as job brokerage, active labour market measures, insurance in case of unemployment and analysis, and supporting staff. This ratio is 72.6% to 27.4%. At the level of local branch offices, this ratio is even higher for those who perform main functions of the NES, i.e. job brokerage and implementation of active labour market measures (80.2%).

The Central Office employs 13.4%, while the rest is distributed mainly through regional offices (85.3%), two sub-regional central offices in Vojvodina and Kosovo and Metohija province employ 1.3% of all NES employees (see Figure 9).

Figure 9

Employment by organizational structure as % of total, end-2009



Source: NES Serbia.

In 2009 there were 367 registered unemployed persons per one NES staff member, while within the European Union, the average ratio is around 1:150 (in some countries often below 100) – the figure recommended by the ILO is 1:100[30].

[30] Kuddo, A. (2009), 'Employment Services and Active Labor Market Programs In Eastern European and Central Asian Countries', SP Discussion Paper No. 0918.

However, the caseload indicator (the ratio of unemployed to PES counsellors/front office staff) is considered to be even more essential as it demonstrates what the real work pressure put on counsellors is. A high caseload limits regular reporting and confirmation of unemployment status by job seekers, as well as opportunities for job counsellors to monitor and encourage job searches and deliver information. Thus in the majority of countries, services are 'tiered', so that initially unemployed people are left largely to fend for themselves, and only those who are unable to find work after some period of time are provided with more intensive advice and assistance. As illustrated in Table 24, in Serbia the staff caseload indicator was 853 in 2009, up from 533 in 2008 (which is to be explained by the staff reductions in the public sector). The NES provides to every registered unemployed person a set of services such as individual plans of employment, career guidance, information and counselling, assessment of employability, involvement in active labour market measures and job brokerage.

Table 24

Public employment services key ratios

Country	PES Staff: Unemployed Ratio			Ratio of front-line counsellors to total PES staff (%)			Caseload (clients per member of front office staff)		
	2006	2008	2009	2006	2008	2009	2006	2008	2009
Albania	1:364	1:380	1:404	na	47	60	na	809	672
Federation BiH	1:750	1:630	1:662	na	na	32	na	758	na
Rep Srpska	1:593	1:509	1:548	63	61	53	na	848	na
Macedonia	1:727	1:654	1:670	53	53	53	1,362	1,244	1,266
Croatia	1:245	1:189	1:207	61	58	53	na	327	na
Kosovo	1:707	1:875	1:949	43	47	51	1,633	1,846	1,862
Montenegro	1:113	1:86	1:84	75	72	72	150	118	117
Serbia	1:455	1:323	1:367	57	61	43	796	533	853

Source: National PES.

In Serbia only 43% of the NES employees are counsellors and staff working directly with clients, which represents the second lowest value in the countries of the Western Balkans. For example, in Bulgaria the value is 74% and in many other EU member states it is around or above 80% (e.g. Germany 86%, Sweden 78%, Estonia 83%, Czech Republic 84%[31]).

The educational structure of the NES staff has been stable over the years (see Figure 10). Almost half of the NES staff members hold a university degree or have higher education[32], while employees with post-secondary non-university education account for about 15%.

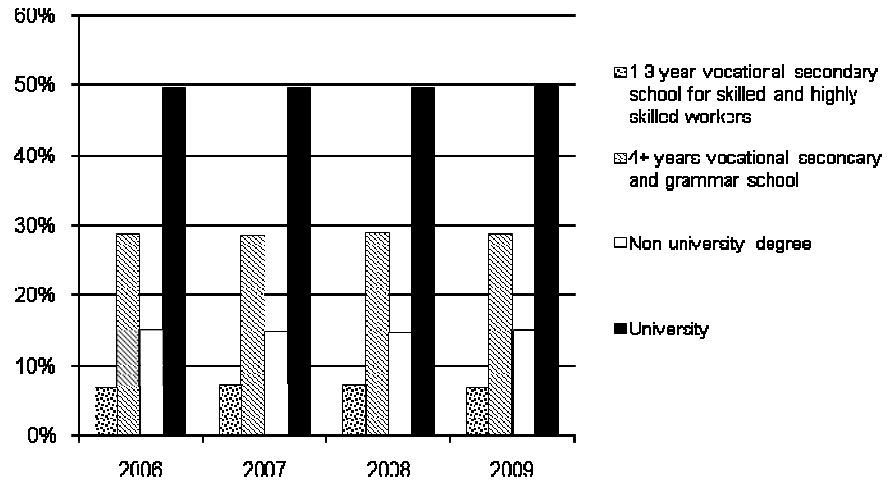
[31] World Bank (2008), 'Active Labor Market Programs in FYR Macedonia, Policy Note', Report No. 45258-MK, September 2008 (2006 data).

[32] The share of MSc and PhD holders is small, below 1%.

About 28% of the employees have graduated from secondary schools and those who have completed a three-year vocational secondary education and below account for 7% of the total NES staff.

Figure 10

Educational structure of the NES staff



Source: NES Serbia.

Although the level of education of NES staff is generally high, there is still a great need for further training of staff. Tailored training programmes are essential for strengthening the capacities of the staff (to upgrade their qualifications, competences and abilities). Training programmes for NES staff are frequently financed by international or bilateral projects (e.g. IPA and World Bank projects, study visits to PES in Member States). So far, NES staff training has included, for instance, improvement of the work with clients and job assistance services, marketing, quality management, software use, implementation of ALM measures, etc.

According to some unofficial estimates, about 10% of total NES staff in Serbia has participated in training for capacity building. During 2010 and 2011 there are plans for 450 NES staff (roughly 25% of the total NES staff) from all branch offices (400 counsellors and 50 analysts and statisticians) to be trained in the monitoring and evaluation of active labour market policies and the implementation of forecasting labour market trends. These activities will be conducted through the implementation of the IPA 2008 project Enhancing the Data Management, Forecasting and Monitoring and Evaluation Capacity of the National Employment Service.

Organizational structure

The organizational structure of the NES has five levels:

- Direction (the Central Office that will be moved from Belgrade to Kragujevac)

- Two labour offices at the autonomous provincial level (in Vojvodina and Kosovo and Metohija, situated in the cities of Novi Sad and Kosovska Mitrovica)
- 32 regional offices (branch offices)
- 21 local offices
- 127 sections

The network of the labour offices is well distributed across Serbia.

The Central Office of the NES has eight departments:

- Department for job brokerage and career planning
- Department for entrepreneurship and programmes of employment
- Department for unemployment insurance and legal issues
- Department for quality, analysis, statistics and monitoring, projects, international affairs and information
- Department for accounting and finance
- Department for IT
- Department for human and material resources
- Department for internal audits

The organizational schemes of the regional and local labour market offices vary depending on internal capacities and functions. The NES has a unique information system, meaning that all labour offices have access to a unique database/register of clients. This central information system is established and managed by the regional labour office in Belgrade.

Conclusions

To recapitulate, the Serbian labour market is characterized by low employment and activity rates, particularly for women and young people. Unemployment has been a serious problem throughout transition, particularly for those with secondary education. This indicates the weaknesses of the secondary educational system in adapting to the needs of the labour market, but also the obsolete skills of the high percentage of long-term unemployed. In general, the educational attainments of the workforce have changed only marginally over recent years. Young people are affected disproportionately by unemployment, with even those holding college or university degrees being hit hard. The apprenticeship programme 'First Chance' launched by the government in 2009 in order to combat youth unemployment is showing first positive results: since mid-2009 the number of young people registered at labour offices has been on the decrease. Other groups heavily affected by unemployment are internally displaced persons, ethnic minorities (Roma women in particular) and refugees. Regional disparities widened during transition. Central Serbia, where

many jobs were lost in manufacturing in the course of restructuring, has been hardest hit by unemployment, while the capital city of Belgrade is best positioned. Labour mobility, as everywhere in Europe, is very low in Serbia. By contrast, Serbia's (outward) migration is very high and remittances constitute an important share of income. Brain drain has become an important issue in recent years.

Informal sector employment, which has been traditionally high in Serbia, even increased during the past decade, with a rising share of older workers, better educated persons with secondary education or more, self-employed and unpaid family workers.

The crisis had a strong impact on the Serbian labour market, which was reflected in rising unemployment and declining employment rates of young people in particular. At the same time, inactivity increased. The sectors most affected by the crisis were agriculture, trade, construction and manufacturing. The impact of the crisis was highest for workers with low and medium levels of education, while employment of the highly skilled continued to grow.

4 Assessment of labour market policies

4.1 Public spending on active and passive labour market policies

Spending on labour market policies in Serbia is below the average of the developed Western economies (World Bank, 2006). However, the data presented in Table 25 below show a rising trend over the years. In 2004 the share of total spending, which includes spending on both passive and active labour market policies, was 0.94% of GDP, while in 2009 it was 1.1% of GDP. According to the planned budget of the National Employment Service for 2010[33], an additional increase of expenditures on labour market policy measures is envisaged. The impact of the crisis, coupled with an increase in registered unemployed in 2009, had influenced the decision of the authorities to allow a higher percentage of the annual budget to be spent on active and passive labour market policies.

Measured as a percentage of GDP during the 2004–2008 period, spending on active labour market policies rose significantly from 0.03% to 0.11%. At the same time, spending on passive labour market policy measures also increased, but this increase was slower in relative terms. A significant part of passive labour market measures is spent on unemployment benefits. The set of passive labour market measures, besides unemployment benefits that include net allowances and social contributions (health and pension contributions), also include support for receivers of temporary unemployment benefits for employees from Kosovo and Metohija, one-off payments of the total unemployment benefit entitlement for those who opted for self-employment, and other rights arising from unemployment insurance.

[33] NES Informer for 2010, March 2010.

Table 25

Public spending on active and passive measures as % of GDP

	2004	2005	2006	2007	2008	2009[1]	2010[1)]
Active measures	0.03	0.09	0.08	0.10	0.11	0.11	0.12[2)]
Unemployment benefits, gross	0.83	0.75	0.81	0.78	0.72	0.77	0.89[2)]
Passive measures, gross	0.91	0.85	0.90	0.95	0.99	0.98	1.16[2)]
Labour market policies, total	0.94	0.95	0.98	1.06	1.10	1.10	1.27[2)]

1) Shares of active policies in GDP are calculated according to GDP forecasts for 2009 and 2010 (Government of the Republic of Serbia, Ministry of Finance, 2010). – 2) Own calculation based on the NES plan of expenditures on labour market measures for 2010 (National Employment Service Informer, March 2010); previous data.

Source: Own calculations based on NES data, Business Reports 2004–2009.

The structure of expenditures on active and passive labour market policies, as well on the NES administration, has been fairly stable over the years (Table 26). In nominal terms it allows, from year to year, higher but almost equally allocated amounts that are to be spent on labour market policies and on supporting administration. Due to the decline in the number of NES employees, the nominally higher budget may be reallocated to the increase of salaries or to other material costs.

Table 26

Expenditures on active and passive measures and NES administration

as % of total expenditures on labour market policies

	2003	2004	2005	2006	2007	2008	2009
Active measures	9.1	2.8	8.8	7.3	8.1	8.8	9.2
Passive measures	81.3	86.5	81.9	83.5	82.2	82.4	81.8
NES administration	9.7	10.6	9.4	9.3	9.7	8.8	9.0

Source: For 2003 and 2004, ETF (2007), Labour Market in Western Balkans. For the other years, the shares are calculated by using data from the National Employment Service's Business Reports.

4.2 Implementation of labour market policies

4.2.1 Implementation of passive polices

Within passive labour market policies, unemployment benefits account for almost 80% of the total amount spent on passive labour market measures (NES, 2010), temporary unemployment benefits for employees from Kosovo and Metohija account for 12%, and one-off payments of total unemployment benefits for those who opted for self-employment account for 0.4%. In addition, over the last several years, passive measures have also included unemployment benefits for those who have up to five years left until retirement, compensation of unpaid salaries for workers of the 'Zastava' Kragujevac automobile company, subsidies for covering obligatory social contributions according to the Law on Obligatory Social Con-

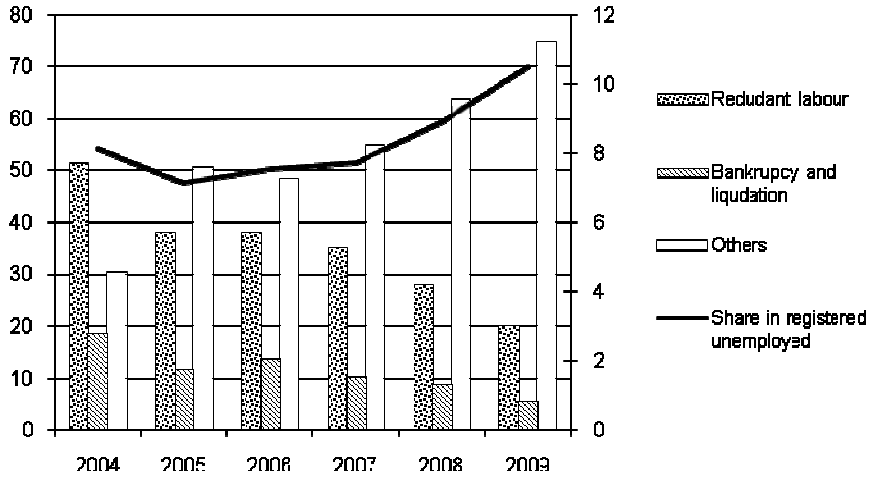
tributions for employers of persons in categories with special needs, such as persons older than 45 and/or 50 years of age, younger than 30 years of age who have found first employment, apprentices up to 30 years of age, and persons with disabilities.

The average net unemployment benefit in 2009 was €242[34] or 72% of the net average wage. This is a significant increase compared to 2004, when it was only 47% (World Bank 2006, p. 85), and resulted from the stagnation of wages between 2008 and 2009 and, at the same time, an increase in unemployment benefits. The minimum wage stagnated in 2009 at the level of about EUR 160 and was 1.5 times the average unemployment benefits.

The coverage of unemployed persons by unemployment benefits is rather low. During the period from 2004 to 2007, the share of unemployment benefit recipients stagnated at the level of 8% (see Figure 11 below), while in 2008 and 2009 it increased to 8.9% and 10.5%, respectively, due to an increasing number of registered unemployed who had lost their jobs as a consequence of the global financial and economic crisis. In general, the two most important reasons for low coverage are the interruption of support through packages of unemployment benefits due to the high percentage of long-term unemployed and the high percentage of young, first-time job seekers who are not eligible for unemployment insurance according to the Law on Employment and Unemployment Insurance (see Box 4.1) (World Bank, 2006, p. 83).

Figure 11

Beneficiaries of unemployment benefits by categories (left scale) and share of beneficiaries in registered unemployed (right scale)



Source: NES Serbia.

[34] The net unemployment benefit is obtained as 12-month average of the monthly paid amount per beneficiary divided by the average annual exchange rate of the National Bank of Serbia.

The dynamics of the payment of unemployment benefits is not satisfactory. Since 2007, the time lag has been six months and has decreased to four months after the unemployed qualify for this kind of support. This is mostly due to the insufficient resources in the NES budget. Thus, in 2009 only 65% of expenditures[35] for a package of unemployment benefits (cash allowance and obligatory social contributions – transfers to the funds of obligatory health and pension insurance) was covered by the revenues collected through the payment of unemployment insurance contributions. The existing gap of 35% is paid from the budget.

The categories of unemployment benefit recipients changed between 2004 and 2009. As Figure 11 shows, in 2004 a significant proportion of the beneficiaries were redundant workers who had lost their jobs due to privatization and restructuring of socially-owned companies, whereas over the years the share of those beneficiaries decreased from 51.2% in 2004 to 19.8% in 2009. The dynamics of beneficiaries who lost their jobs due to bankruptcy and liquidation of the firms employing them also decreased over the years; in 2009 only 20% belonged to this category of beneficiaries, while in 2004 they comprised 51%. The other main reasons include discontinuation of the labour contract with the same firm due to reasons determined by labour law (agreement between the employer and employee about interruption of the labour contract, dissolution of temporary employment, etc.). It should be stressed that privatization will cause further job destruction in the near future, because about 250 thousand employees who are working in socially-owned companies which are under restructuring will lose their jobs (World Bank, 2006). The category of users who lost their jobs due to other reasons increased and in 2009 covered almost 75% of all beneficiaries.

Box 4.1

Unemployment insurance contribution scheme

Unemployment benefit duration

According to the 2009 Law on Employment and Unemployment Insurance, unemployment benefits are provided for the unemployed who have paid unemployment insurance contributions for at least 12 months without interruption or 18 months with interruptions. The unemployment benefit duration consists of the following dynamics: (i) three months for unemployment insurance contributions paid over 1-5 years; (ii) six months for 5-15 years of paid contributions; (iii) nine months for a period of 15-25 years of paid contributions; and (iv) twelve months for a period of paid contributions of 25 years and over. Exceptionally, unemployed persons with two years left until retirement may receive unemployment benefits at least 24 months.

Some changes were made in the new Law. Beneficiaries of unemployment benefits up to nine months have to record 25 years of paid contributions instead of 20 years as was specified in the

[35] The coverage by paid unemployment insurance contributions is stable. For instance, in 2005 only 67% of expenditures for unemployment benefits were covered by the revenues collected from unemployment insurance payments (World Bank, 2006, p. 86).

2003 Law. In addition, benefits for the unemployed with a certain number of years of paid unemployment insurance contributions who are under a certain age have been dropped. This measure is in line with the shift of the age boundaries for retirement for both men and women.

Replacement rate

The basis for the unemployment benefit settlement is the average wage of the unemployed person in the last six months before the payment of unemployment insurance contributions was discontinued. According to the 2009 Law, the unemployment benefits are set at the level of 50% of the average wage. The 2003 Law allowed a higher replacement rate. For the first three months of payment, unemployment benefits were determined as 60% of average wage and for the rest of the period decreased to 50%. Unemployed persons enrolled in active labour market measures additionally benefited from 10% higher unemployment benefits during the period of attending additional education and training organized by the NES.

Limits of unemployment benefits

The limits of unemployment benefits are determined by the minimum wage negotiated among the social partners within the Socio-Economic Council. The minimum wage is determined twice a year. According to the 2009 Law, unemployment benefits cannot be higher than 160% or lower than 80% of the minimum wage stipulated for the month of unemployment benefits payment. This implies that according to the new 2009 Law, the average unemployment benefit is 50% higher than the minimum wage. The unemployment benefits follow the dynamics of the minimum wage, which is different than under the previous Law of 2003. According to the 2003 Law, the maximum amount of unemployment benefits was limited by the average wage, while the minimum was determined by the minimum wage, so that the average unemployment benefits were set at the level of about 50% of the national average wage.

Source: Law on Employment and Unemployment Insurance, *Official Gazette of the Republic of Serbia* no. 71/2003; 36/2009.

4.2.2 Implementation of active policies

As Table 27 shows, the number of persons participating in active labour market programmes increased steadily between 2004 and 2009. The rise was mainly due to the increasing number of users of services such as career guidance, information and counselling, training for active job searching, job clubs, job fairs etc., while the number of participants benefiting from programmes aimed at additional education and training and support for new job creation and self-employment increased only slightly. The orientation towards labour market information sharing, career guidance, regular provision of information at the front desks and information provided through Centres for Information and Professional Counselling[36] for young people, as well as assessment of individual employability are part of the policy of improvement of labour market services that was recommended by the NES Strategy.

[36] So far, only two such centres have been founded, in Belgrade and in Novi Sad. In 2009, 8,000 persons used services in these two centres.

Table 27

Realization of ALM policies by year

Category	2004	2005	2006	2007[1]	2008	2009
Registered unemployed	859,728	895,697	916,257	785,099	727,621	730,372
ALMP participants	22,671	38,657	50,290	70,722	80,165	93,141
Job search assistance, career guidance and counselling	78,935	100,555	625,233	760,875	746,952	923,657
Total	101,606	139,212	675,523	831,597	827,117	1,016,798
ALMP participants as % of registered unemployed	2.6	4.3	5.5	9.0	11.0	12.8
Persons who received career guidance and counselling as % of registered unemployed	9.2	11.2	68.2	96.9	102.7	126.5
Total ALMP as % of registered unemployed	11.8	15.5	68.2	91.5	90.3	139.2

1) The reduction in the number of registered unemployed in 2007 is result of changes in the register of unemployed persons due to the separation of beneficiaries of health insurance. Since 2007, an unemployed person is a beneficiary of health insurance provided by the Fund for Health Insurance only on the ground of a proof that confirms that he or she is unemployed (a person with a terminated labour contract).

Source: Own calculation based on National Employment Service's Business Reports 2004-2009.

The percentage of participants in additional education, training, employment programmes and programmes for self-employment also increased between 2004 and 2009. However, even though the number of these beneficiaries rose fourfold, this number was less compared to the rise in the number of users of services such as job search assistance, career guidance and counselling. It should be also pointed out that from year to year, a higher percentage of registered unemployed persons received the offer to participate in some of the active labour market programmes. As an illustration, in 2004 only 2.6% of the registered unemployed participated in ALMPs, while in 2009 the total number of beneficiaries increased to 12.8%.

Job search assistance, career guidance and counselling have been steadily improved and extended over time. In 2004, only a limited number of services were provided to the registered unemployed, for example information, counselling and selection, training for active job searching, job clubs and job fairs, with a limited number of beneficiaries. In 2009, the number of beneficiaries exceeded the total number of registered unemployed by more than one quarter, implying that an unemployed person may receive more than one service within the services of information, career guidance, counselling, and active job search training.

Box 4.2

Active labour market policies

Active labour market policies were introduced by the 2003 Law on Employment and Unemployment Insurance. The Law stipulates that the ministry in charge of employment proposes the annual programmes of active labour market policy, which are coordinated with the Socio-Economic Council. The new Law follows the same principle.

The National Employment Service is authorized to implement active labour market policies through the network of its regional and municipal labour offices. The new Law envisages the following active

labour market measures: (i) job brokerage; (ii) professional orientation, counselling and career guidance; (iii) subsidies for employment; (iv) self-employment programmes; (v) additional education and training; (vi) stimulus for unemployment beneficiaries; (vii) public works and other active labour market measures created for job seekers. The Law determines criteria for the preliminary selection of active labour market beneficiaries according to categories (long-term unemployed seeking a job for 24 months and over, first-time job-seekers, persons with factors interfering with employability), education, occupation, additional skills, possession of previous working experience, etc.

Source: Law on Employment and Unemployment Insurance, *Official Gazette of the Republic of Serbia* no. 71/2003; 36/2009.

According to the data presented in Table 28, since 2006 the realization of the planned active labour market policies has significantly improved in terms of the number of covered beneficiaries.

Table 28

Realization of ALM policies by category and year

Category	**2006**	**2007**	**2008**	**2009**
Total planned	866,584	689,170	670,983	676,738
Total realized	675,523	831,597	827,117	1,016,798
% of realization, all included labour market policies	78.0	120.7	123.3	150.2
% of realization by category of ALMP				
Job search assistance, career guidance and counselling				
Planned	822,500	644,270	610,064	606,640
Realization	625,233	760,875	746,952	923,657
% of realization	*76.0*	*118.10*	*122.4*	*152.3*
Additional education and trainings				
Planned	12,834	13,500	13,690	17,605
Realization	11,794	14,551	10,298	20,515
% of realization	*91.9*	*107.8*	*75.2*	*116.5*
Development of entrepreneurships and employment programmes (with included social contributions)				
Planned	28,250	36,982	41,229	42,493
Realization	36,982	52,101	58,563	62,029
% of realization	*130.9*	*140.9*	*142.0*	*146.0*
Public works				
Planned	3,000	2,500	5,000	10,000
Realization	1,514	3,688	10,184	10,160
% of realization	*50.5*	*147.5*	*203.7*	*101.6*
Project 'Severance to Pay'				
Planned			1,000	
Realization		382	1,120	437
% of realization			112	

Source: Own calculation based on National Employment Service's Business Reports 2004-2009.

An overview by the groups of active labour market programmes shows that measures such as additional education and training or public works could not be realized completely, mainly for political and administrative reasons (changes in management after elections and

while awaiting the appointment of new governments, time lags in the adoption of the NES annual budget, etc.).[37] [38] Within the UNDP-managed project 'Severance to Job', a certain number of redundant workers from firms under privatization found another job between 2007 and 2009. The project had a limited impact on employment due to budgetary and durational constraints.

4.3 Assessment of active labour market polices

Active labour market policy measures in Serbia can be divided into three main groups. The first group covers job search assistance, career guidance and counselling. Within this group, the further classification of measures includes training for active job searching, training of self-effectiveness, job clubs, job fairs, individual and group information services, assessment of employability and individual plans of employment, counselling, selection and classification. The second group includes functional primary education of adults, training (foreign languages, basic and specialized PC training, vocational retraining, virtual enterprises, and training by a known employer) and employment of apprentices. The third group concentrates on the development of entrepreneurship and employment programmes for counselling and training in business centres, subsidies for self-employment, one-off payments of total unemployment benefits, subsidies for creating new jobs, new employment of persons with disabilities, subsidies for compulsory social contributions, and public works. An overview and impact assessment of active labour market policies for Serbia was previously elaborated in several analytical studies.[39]

An assessment of active labour market policies is made by analysing the dynamics of enrolment of beneficiaries in the different programmes and measures of active labour market policy and through measuring the impact on employment. The gross impact of the set of labour market measures and programmes on employment is roughly estimated at one third. This means that the average job placement rate six months after participation in a particular measure or programme is one third for all observed measures and programmes, but differs widely across them.[40] The lowest job placement rates, i.e. below average, are estimated for those who participated in programmes of additional education and training, job fairs, and active job-search training. Programmes of self-employment subsidies, training by a known employer, virtual enterprises and financial support for apprentices have a strongly positive impact on employment, with job placement rates six months after participation in the programme ranging between 70% (for self-employment programmes) and

[37] These reasons are explained in detail, with an historical overview, in Arandarenko and Krstic (2008).

[38] The expenditures for the realization of training programmes, public works and the like ought to be authorized by the Managing Board of the NES and/or by the Director.

[39] Several are mentioned here: ETF (2005); World Bank (2006); Economic and Social Policy Institute (2006); Ognjenovic (2007); Arandarenko and Krstic (2008).

[40] Economic and Social Policy Institute (2006).

36% (for apprentices). The impact of training by a known employer is also high – over 65% of beneficiaries found employment following participation in such training. An assessment of the net impact of active labour market policies is only rarely conducted. There is some evidence of an isolated positive impact of training on the employability of beneficiaries (Ognjenovic, 2007). An *ex ante* evaluation of active labour market policies has so far not been conducted. The MoERD and NES have plans under the IPA 2011 framework that will ensure *ex ante* evaluations of active labour market measures.

In response to the global crisis and in order to dampen its concomitant impact on jobs, the MoERD foresees a set of active labour market measures that will be implemented through the Action Plan of Employment for 2010.[41] Certain categories of unemployed persons will be covered to a higher percentage: First of all, there will be programmes for employment of young persons seeking a first job, titled 'First chance'. Second, a significant number of discouraged and long-term unemployed are to be given employment through public works. Public works will have another dimension, too. Most of the public works will be organized in underdeveloped and devastated regions in Serbia. The categories of unemployed persons with only little or no chance at all of finding a job will include long-term unemployed, low-skilled persons, redundant workers, persons with disabilities, socially deprived Roma, refugees and IDPs, and returning emigrants in the process of readmission. Additionally, the programme of active labour market measures for 2010 will include persons in social need to stimulate their active participation in the labour market.

Table 29 below shows the development of the participation of the target groups in the services provided by the NES such as job search assistance, career guidance and counselling. Women are well represented in the group of beneficiaries – more than half of all participants are women. This is not surprising, as the percentage of women who are unemployed is higher than that of men. The percentage of employed persons six months after making use of the services, presented in the last line of Table 29, shows that for almost all services used, job placement rates are 15% of those who used the services.

Further planning of the implementation of active labour market measures would be ameliorated by the development of a system of monitoring and evaluation that would enable net impact assessment of active labour market measures. The figures presented in this report are based on gross impact assessment. Net impact assessment should improve targeting of beneficiaries and ensure a better allocation of the annual budget to different kinds of support provided by active labour market policies (Arandarenko and Krstic, 2008; Ognjenovic, 2007).

[41] Ministry of Economy and Regional Development (2010).

Table 29

Job search assistance, career guidance and counselling

Category	2005	2007	2008	2009
Total	100.0	100.0	100.0	100.0
Women	54.3	55.0	55.7	53.5
Level of education				
1st level	12.8	19.1	19.8	20.3
2nd level	5.8	2.9	2.4	2.2
3rd level	25.3	30.0	27.8	27.1
4th level	34.6	31.0	32.9	32.1
5th level	1.0	1.0	0.9	0.9
6th levels	8.6	7.2	7.1	7.3
7th level and more	11.8	8.9	9.2	10.2
Total	100.0	100.0	100.0	100.0
Age intervals				
up to 25	25.0	25.0	23.5	22.4
26-30	19.1	19.1	18.2	18.3
31-50	44.0	44.0	45.1	44.9
50 and over	11.9	11.9	13.2	14.5
Total	100.0	100.0	100.0	100.0
Duration of unemployment				
Long-term unemployed	19.0	25.1	21.3	18.8
First-time job seekers	50.1	39.5	43.0	36.0
Impact on employment (gross employment rate)				
% of employed after 6 months		15.1	15.6	13.9

Source: Own calculation based on National Employment Service's Business Reports 2004-2009.

The NES has a diversified network of regional and local branch offices, so that both active and passive labour market polices could be properly implemented throughout the whole territory of Serbia. The national labour market policy is, first of all, oriented towards the implementation of active labour market measures as opposed to passive measures. It could be illustrated by the annual trends of beneficiaries of both measures presented in this study. The NES has the capacity to implement both active and passive measures. This can also be seen by the rising number of clients who use the primary set of services provided by the NES staff, such as job search assistance, career guidance and counselling. In order to implement active labour market measures, the NES engages its internal capacities not only for the selection of future beneficiaries but also for the selection of training providers and economically active or prosperous companies that will adequately use subsidies for employment.

An additional step taken by the NES to improve its effectiveness in the implementation of labour market policies was to separate the beneficiaries of health insurance from the register of the unemployed. These beneficiaries are registered with the Republic Fund for

Health Insurance and the data on health insurance beneficiaries is exchanged between these two institutions.

Still, the NES needs to further strengthen its internal capacities and its technical and human recourses, in order to raise efficiency in providing labour market services such as job brokerage, beneficiaries counselling and information services and in providing necessary training to both the unemployed and employers in order to fill a short-term gap in vocational education.

Persons who frequently use services of job search assistance, counselling and information are those with up to four-year secondary (vocational and general) school education and persons in the middle of the age distribution curve. In general, career guidance and counselling are services more oriented towards young people, while job search assistance is mostly used by the older labour force.

In the programmes of additional education and training, women are overrepresented compared to men, but the share of women who participated in additional programmes and

Table 30

Additional education and training

Category	2005	2007	2008	2009
Total	100.0	100.0	100.0	100.0
Women	58.3	65.4	58.9	56.9
Level of education				
1st level	0.9	7.7	5.0	1.4
2nd level	0.2	3.7	0.7	0.3
3rd level	6.1	15.2	16.2	21.0
4th level	48.3	40.2	39.2	42.4
5th level	0.3	0.3	0.3	0.5
6th levels	13.7	12.7	14.1	10.9
7th level and more	30.5	20.2	24.5	23.5
Total	100.0	100.0	100.0	100.0
Age intervals				
up to 25	31.3	32.9	39.2	45.9
26-30	32.7	32.7	36.9	38.8
31-50	33.5	32.4	21.8	14.6
50 and over	2.6	2.0	2.1	0.7
Total	100.0	100.0	100.0	100.0
Duration of unemployment				
Long-term unemployed	20.1	32.4	20.5	18.4
First-time job seekers	59.8	67.2	68.1	58.8
Impact on employment (gross employment rate)				
% of employed after 6 months	n.a.	31.3	28.9	n.a.

Source: Own calculation based on National Employment Service's Business Reports 2004-2009.

training slowly decreased in 2009 (see Table 30). Target groups comprise unemployed persons with secondary vocational and general education and with university degrees. There is a quite even distribution of participants over the individual age categories if those over 50 years of age are excluded.

The long-term unemployed are not well-represented in the group of participants in additional education and training. The coverage is different over the years, but in general about one quarter of the participants belong to this category of unemployed. The rate of employment is higher compared to that for participation in active job search programmes – slightly less than one third of participants hold a job six months after having participated in the training.

In the programmes aimed at the development of entrepreneurship and providing subsidies for new employment, the participation of women is lower than that of men (see Table 31). The majority of users are those with secondary vocational and general education. Highly educated unemployed persons are not interested in participating in programmes that develop entrepreneurial skills and create new jobs. The major group of beneficiaries of the programme ranges between 31-50 years of age.

Table 31

Development of entrepreneurship and employment programmes

Category	**2005**	**2007**	**2009**
Total	100.0	100.0	100.0
Women	41.2	n.a.	40.3
Level of education			
1st level	14.2	14.2	17.8
2nd level	3.8	4.4	2.7
3rd level	28.1	31.0	29.2
4th level	39.7	36.1	35.7
5th level	1.8	2.0	1.3
6th levels	5.5	5.6	6.1
7th level and more	7.0	6.7	7.2
Total	100.0	100.0	100.0
Age intervals			
up to 25	14.3	12.1	14.2
26-30	11.2	13.8	16.0
31-50	56.2	55.0	52.3
50 and over	18.3	19.1	17.6
Total	100.0	100.0	100.0
Duration of unemployment			
Long-term unemployed	32.3	35.4	21.0
First-time job seekers	17.1	27.3	23.5
Impact on employment (gross employment rate)			
% of employed after 6 months	n.a.	16.0	12.6

Source: Own calculation based on National Employment Service's Business Reports 2004–2009.

The long-term unemployed use this programme to a higher percentage compared to unemployed young people. The average rate of job placement is lower, slightly above 10%, mostly due to the significant portion of beneficiaries participating in training for entrepreneurial skills development provided by the business centres or using services of information and counselling. The rate is underestimated for those who participate in the programmes of subsidies for self-employment and new employment: for these categories the employment rates are higher and employment is regulated by a certain form of obligatory contracts during the agreed time period. The period of employment with the same employer under the contracts is regulated by NES legal acts and depends on the level of educational attainment.

4.4 Vocational and educational training

As in other transition countries, the education and training system in Serbia does not sufficiently meet the requirements of the labour market. Skills mismatches were found in many case studies aimed at identifying the main structural reasons for the existing gap between labour supply and demand.[42] Studies have found that the educational system is lacking in quality, particularly when it comes to vocational training and to a lesser extent in the case of secondary and higher education. Results obtained from the PISA test show that the performance of 15-year-old students in Serbia is considerably below the OECD average and also below the performance of students in Slovenia and Croatia (ETF, 2010). According to these results, in order to catch up with these countries Serbian students would need one to three years of additional education.

Compulsory education lasts eight years and, with pre-school education, which became compulsory since the school year 2007/2008, nine years. The school infrastructure suffered particularly during the 1990s due to the war and economic sanctions, and the reconstruction of schools started only after 2000. The majority of schools still lack modern teaching equipment. LSMS data show that within the group of children not included in elementary education are Roma children and children from low-income families and rural areas; between 2002 and 2007, the proportion of children from low-income families attending elementary school fell by 8 percentage points (SPSI Serbia, 2008).

Secondary education lasts from three to five years and is not compulsory: it consists of three types of schools: gymnasium, professional/vocational school and art schools. The gymnasium prepares students for further educational levels and lasts four years. Vocational schools prepare students for work in 17 professional fields, and last three to four years. Four years of secondary education qualifies students for higher education. A voca-

[42] Relevant references that confirmed skill mismatches through direct contacts with the representative samples of employers have been produced by the Statistical Office of the Republic of Serbia (2010); Economic and Social Policy Institute (2009).

tional education for students with disabilities takes two to three years, with one year of work practice, and enables them to work in 11 different jobs. Arandarenko (2007) argues that vocational schools providing direct links to the labour market under the socialist system represent one of the major drawbacks of the Serbian education system. Due to a lack of gymnasiums today, about 77% of Serbia's secondary enrolment is in vocational schools, the concept of which is still largely based on the requirements of a manufacturing-based economy rather than on those of a modern services-based economy.

In order to develop secondary vocational education, a reform process was introduced by the EU CARDS programme starting in 2002. Together with prospective employers, new curricula were developed and implemented in 164 schools. Although the outcome of the programme has not been evaluated so far, according to the VET Centre and the Ministry of Education only about 8% of vocational students are currently in the new profiles and 'the major part of the VET system remains unchanged, with obsolete profiles, low in-company experience and inadequate practical skills training' (ETF, 2010).

Conclusions

To recapitulate, although spending on passive and active labour market policy measures in Serbia has been growing in the past couple of years, it is still low compared to the EU average but higher than in most other Western Balkan countries. The lion's share of the available budget is spent on passive measures; the coverage of unemployment benefit recipients is very low (11%) because of the high percentage of long-term unemployed as well as young first-time job seekers who are not entitled to unemployment benefits. In general, due to budgetary reasons, there is a delay of about 4 months before payment of unemployment benefits begins. Today, benefit recipients are mainly those who have lost their jobs due to the termination of their contracts, while at the beginning of the new millennium the major part of recipients was accounted for by those who became jobless in the course of privatization and restructuring. Participation in active labour market programmes has increased over time, and the realization of planned policy measures has significantly improved. The average job placement rate six months after participation in active measures is about one third, but varies across individual measures: e.g. the job placement rate ranges between 70% for self-employment programmes and 36% for the financial support of apprentices. In order to improve the planning for ALMPs it would be necessary to develop a system of monitoring and evaluation that enables a net impact assessment of ALMPs. Women are overrepresented in the programmes of additional education and training, while men account for a higher share than women in the programmes supporting entrepreneurship and providing subsidies for the creation of new jobs.

An important step aimed at improving the efficiency of labour market policy measures was taken in 2007, when the administration of health insurance was separated from the NES, where it had absorbed much time and effort in the past.

5 Strategy of coordination with EU labour market policies

The government has announced a ten-year plan, Serbia 2020, which is to be closely connected with the EU programme Europe 2020. Within that framework, structural reforms will be considered which are to be coordinated with the EU as the accession process progresses. The proposed programme, which was recently released, calls for significant growth in employment over the next decade – an additional 400,000 new jobs are to be created. This is presumed mainly on the basis of strong GDP growth fuelled by growing investments and exports. Although the programme assumes a speed-up in the process of EU integration, it is not all that specific when it comes to labour market policies. Important reforms of the tax code are envisaged, mainly with the aim of reducing the tax burden on labour. There are calls for pension reforms and education reforms. Also, active labour market policies are to be relied on more than before. The programme lacks specifics and thus could benefit from policy dialogue with the EU in order to elaborate a more strategic approach to labour market policies. Though the growth and employment strategies refer to the EU policies and strategies and share some of the goals when it comes to the flexibility of, security in and the innovation for the labour markets, there is a lack of instruments to achieve these goals and few specific plans that could be implemented in either the short of the medium run. With that in mind, a more intensive policy dialogue with the EU and the member states would prove quite useful.

Conclusion: assessment of policies and recommendations

The overall developments on the Serbian labour market are not substantially different from the pattern observed in most transition countries and especially those in the Balkans. Most employment and unemployment problems are structural rather than cyclical. Low level of employment, high level of unemployment, especially among the young and the old, and high rate of inactivity are all connected with the structural changes in the economy that is connected with the transition from mainly public to private sector employment and with the rising emphasis on productivity and efficiency.

Labour market policies adopted and followed during the process of transition, however, were mostly designed as if labour market problems were cyclical rather than structural. That accounts for the prevalence of passive as compared to active labour market policies. Even the passive measures were inadequate because they consisted in large part of early retirement and of unemployment and some social benefits. The benign view of the expan-

sion of informal economy can also be seen as a type of a passive labour market policy as it amounted to a type of employment subsidy to those that were self-employed or were partly formally and partly informally employed (part of the wages being reported and part being paid in cash).

Even these passive labour market polices have not been all that generous, with the exception of early retirement. The latter has created a huge problem in the pension fund and has distorted the labour market and the incentives for work significantly. Increasingly this is emerging as a looming social problem and also as a problem for fiscal policies and more specifically for policies of taxation.

The government is contemplating a tax reform that should rebalance the tax burden on labour with that on consumption. This tax reform has been put on hold for the moment because of the possible short term negative effects it might have on consumption and on fiscal balances in the aftermath of the crisis. However, there is recognition that the tax wedge on labour is having a negative effect on both wages and on employment. The problem is that the possibilities to reduce public expenditures are limited without significant reform of the pension system. As a consequence, the eventual effects of the tax reform are most probably going to be rather limited in the short run.

Though labour market problems are mostly structural, some of the effects of the current crisis are clearly cyclical. The government has made an effort to support aggregate demand with increased deficit spending, but the possibilities are limited. Also, some of the programmes for increased infrastructure investments have been slow in implementation. Therefore, strong decline in employment, especially in construction and in services, have not been addressed properly. In the short run, fiscal adjustment and consolidation is going to be necessary, so there are significant limitation to relying on countercyclical policies with the aim to supporting employment generation.

Similarly, some attempt has been made to subsidize employment of the young and also to prevent further lay-offs, but this are temporary programmes and cannot be seen as providing for sustained improvement in the labour market conditions. In the same way the existing programmes that subsidize foreign investments with wages paid from the budget cannot be expected to lead to significant improvements in the bleak labour market picture.

In general, countercyclical labour market policies have mainly been limited in scope and though in some cases temporarily successful those have not changed the overall picture of the labour market structure and development.

Current programmes for future labour market policies clearly recognize the structural character of the low employment and high unemployment and inactivity picture. There is a

general shift towards active labour market policies and also towards a strategy of development that combines these policies with various structural reforms not only in the labour markets but in the product markets and in education and other areas. These programmes are well designed in general. They are, however, strong on aims and rather weak on instruments. In other words, the recognition of what should be done is rather clear, but that cannot be claimed when it comes to the question on how that should be done?

There is an emphasis on the reform of education in order to improve the supply of skills and meet the expected increased demand for employment in industry and in the tradable sector in general. In addition, there is some emphasis on higher investments in science and innovation as the current resources devoted on those are extremely limited. It is, however, not clear where the money will come from and also how are the necessary reforms to be implemented. In the current state of affairs, more investment in skills is like more investment in brain drain.

There is also an emphasis on retraining, but it is not altogether clear how that is to be organized and what are the incentives for participation in these programmes. The experience so far, albeit admittedly a limited one, is not altogether encouraging. Public programmes for training and retraining are not all that efficient while there has been limited public-private partnership in this respect. The major incentive for people to participate in these programmes is the anticipation of employment once the programme is completed successfully. Thus, it might be a good idea to support programmes of training or retraining on the job run by the entrepreneurs looking for specific skills. That would help both the discovery of skills needed and the matching problem between labour demand and supply.

Such programmes are also conducive to positive discrimination schemes, i.e. to support for the activation of vulnerable or disadvantaged groups. Given that these is a significant problem in a depressed labour market, active labour market policies exercised and implement through the cooperation between the state institutions and the private sector could target the improvement of employment prospects for various groups that are discriminated against by the markets or by the predominant social structures.

These considerations lead to the assessment of the needed reforms in the institutional set up both in the government and in the administration. There are a number of deficiencies in the current set up. Three may be the more important ones.

First, there is too much dispersion between various ministries when it comes to labour market policies – both in terms of setting up the policies and in their implementation. This is the consequence of politics rather than policy. Given that the state of the labour market is of critical importance for development and stability, it would be better to have one strong

ministry for labour and employment policies with enough capacity to set up and implement policies targeting all aspects of labour market problems.

Second, there is a need to strengthen the National Employment Service and various other supporting agencies. If active labour market policies should strengthen, the implementing institutions should be capable of facilitating the search and matching problem. That would require a significant improvement in their capacities and responsibilities. They should be entrusted to look for innovative solutions to various active labour market schemes and programmes.

Third, there is a need to increase both the staff and the budget of the institutions designing and implementing various labour market policies and programmes. As the main labour market problems are structural, the policies that address them need to be coordinated with other structural reforms in the area of education, pension reform, product market reforms, and overall industrial policy. This requires a better staff and better financing. For labour policy to be more active, the activities of the facilitating institutions have to be increased.

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Annex

Table A1

Employment rates in South Eastern Europe

Total (employed in % of working-age population 15-64)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Albania [1]	55.1	52.1	52.1	50.1	49.4	45.6	48.7	56.4	53.8	.
Bosnia & Herzegovina	.	44.3	45.4	.	45.4	.	35.0	36.8	40.7	40.1
Croatia	53.2	51.6	52.9	53.4	54.9	55	55.6	57.1	57.8	56.6
Macedonia	40.8	42.6	40.4	38.5	36.8	37.9	39.6	40.7	41.9	43.3
Montenegro [2]	54.9	48.6	50.9	49.8	43.4	.	41	49.2	50.8	48.8
Serbia [2]	**50.1**	**50.3**	**48.6**	**47.6**	**45.2**	**.**	**49.8**	**51.5**	**53.3**	**50.8**
Kosovo	.	.	23.8	25.3	27.7	25.7	25.8	23.7	21.8	.
Bulgaria	51.5	50.7	51.1	53.1	55.1	55.8	58.6	61.7	64	62.6
Romania	64.2	63.3	58.6	58.7	58.7	57.6	58.8	58.8	59.0	58.6
Slovenia	62.7	63.6	64.3	62.5	65.6	66.0	66.6	67.8	68.6	67.5
EU-15	63.2	63.9	64.2	64.4	64.6	65.4	66.2	66.9	67.3	65.9

Male (employed in % of working-age population 15-64)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Albania [1]	66.0	64.0	63.9	61.4	60.1	51.4	58.8	64	63	.
Bosnia & Herzegovina							46.1	48.7	52.9	51.2
Croatia	58.8	58.9	60.2	60.7	62.3	61.7	62.3	64.9	65.1	62.4
Macedonia	50.4	50.6	48.6	45.6	44.4	45.4	48.3	48.8	50.7	52.8
Montenegro [2]	56.6	54.7	56.5	54.6	52.5	.	47.8	56.5	58.3	56
Serbia [2]	**.**	**.**	**.**	**.**	**.**	**.**	**59.2**	**60.0**	**62.3**	**.**
Kosovo	.	.	39.4	42.8	46.4	41.3	41.3	36.2	34.1	.
Bulgaria	56.1	53.6	54.1	56.7	58.7	60.0	62.8	66	68.5	66.9
Romania	69.5	68.6	64.5	64.7	64.1	63.7	64.6	64.8	65.7	65.2
Slovenia	68.5	68.7	67.2	69.9	70.4	71.1	71.1	72.7	72.7	71
EU-15	72.5	73.0	72.8	72.7	72.5	73.0	73.6	74.2	74.2	71.9

Female (employed in % of working-age population 15-64)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Albania [1]	44.1	39.6	39.7	38.3	38.3	38.5	38.1	49	45.5	.
Bosnia & Herzegovina	.	.	.	.	.	.	24	25	28.7	29.3
Croatia	45.6	44.6	46.0	46.3	47.8	48.6	51.0	50.1	50.7	51.0
Macedonia	31.3	34.5	32.0	31.3	28.9	30.1	30.7	32.3	32.9	33.5
Montenegro [2]	40.8	35.8	37.3	36.8	34.3	.	34.8	41.9	43.5	41.6
Serbia [2]	**.**	**.**	**.**	**.**	**.**	**.**	**40.6**	**43.0**	**45.3**	**43**
Kosovo	.	.	8.8	8.3	9.9	10.5	10.6	11.5	9.4	.
Bulgaria	47.2	47.9	48.2	49.5	51.6	51.7	54.6	57.6	59.5	58.3
Romania	59.0	58.2	52.8	52.8	53.5	51.5	53	52.8	52.5	52
Slovenia	58.5	58.6	59.8	57.7	61.3	61.3	61.8	62.6	64.2	63.8
EU-15	53.9	54.9	55.5	56.2	56.7	57.8	58.7	59.7	60.4	59.9

1) Registration data; working-age population: male = 15-59, female = 15-54. From 2007 LFS. - 2) 1999-2003: working-age population: male = 15-59, female = 15-54.

Source: Eurostat; wiiw Database incorporating national statistics.

Table A2

Youth employment rates in South Eastern Europe

Total (employed in % of working-age population 15-24)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Albania	.	.	.	.	.	.	.	.	.	.
Bosnia & Herzegovina	.	.	.	.	.	.	12.6	13.9	17.4	16.7
Croatia	.	.	25.7	24.7	26.9	25.8	25.5	56.5	27.1	25.7
Macedonia		17.5	14.8	12.1	11.5	12.3	14.4	15.2	15.7	15.7
Montenegro	.	.	.	.	.	.	14.2	20.1	23.4	18.6
Serbia	**.**	**.**	**.**	**.**	**.**	**.**	**19.5**	**18.7**	**21.2**	**16.8**
Kosovo	.	.	.	.	.	10.5	11.5	9.4	8.1	.
Bulgaria	19.7	19.8	19.4	20.7	21.5	21.6	23.2	24.5	26.3	25.8
Romania	33.1	32.6	28.7	26.4	27.9	24.9	24.0	24.4	24.8	24.5
Slovenia	32.8	30.5	30.6	29.1	33.8	34.1	35.0	37.6	38.4	35.3
EU-15	39.9	40.5	40.4	39.9	39.6	40.0	40.4	41.0	41.0	38.2

Male (employed in % of working-age population 15-24)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Albania	.	.	.	.	.	.	.	.	.	.
Bosnia & Herzegovina	.	.	.	.	.	.	16.0	18.1	22.1	21.7
Croatia	.	.	2.6	28.5	31.9	30.0	29.1	31.6	33.2	31.2
Macedonia	.	19	17.7	14.1	13.6	14.1	17.2	18.7	19.2	20.6
Montenegro	.	.	.	.	.	.	16.3	23.9	25.7	20.7
Serbia	**.**	**.**	**.**	**.**	**.**	**.**	**25.0**	**22.6**	**.**	**.**
Kosovo	.	.	.	.	.	15.4	17.6	13.6	11.8	.
Bulgaria	21.8	20.1	20.5	21.7	23.2	23.9	25.4	27.1	29.3	28.5
Romania	35.8	35.2	31.4	29.9	30.7	28.2	27.3	28.3	29.1	28.3
Slovenia	34.7	34.1	34.8	33.3	38.3	38.1	39.2	43.2	43.0	39.1
EU-15	43.2	43.9	43.6	42.7	42.4	42.9	43.3	43.8	43.5	39.8

Female (employed in % of working-age population 15-24)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Albania	.	.	.	.	.	.	.	.	.	.
Bosnia & Herzegovina	.	.	.	.	.	.	9.0	9.5	12.2	11.5
Croatia	.		21.8	20.7	21.7	21.3	21.8	21.1	20.6	19.4
Macedonia	.	15.9	11.7	10.0	9.4	10.3	11.4	11.5	12.0	10.6
Montenegro	.	.	.	.	.	.	11.9	16.3	21	16.3
Serbia	**.**	**.**	**.**	**.**	**.**	**.**	**13.4**	**14.4**	**.**	**.**
Kosovo	.	.	.	.	.	5.6	4.7	5.1	3.9	.
Bulgaria	17.7	19.4	18.4	19.6	19.6	19.4	21.0	21.8	23.1	22.9
Romania	30.5	30.0	26.1	22.9	25.1	21.6	20.6	20.2	20.2	20.6
Slovenia	27.4	26.4	27.2	23.6	29.1	29.8	30.3	31.4	33.2	31.0
EU-15	36.5	37.1	37.2	37.0	36.7	37.1	37.4	36.1	38.4	36.5

Source: National LFS.

Table A3

Unemployment rates in South Eastern Europe

Total (in % of total labour force)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Albania	16.8	16.4	15.8	15.0	14.4	14.1	13.8	13.5	13.0	.
Bosnia & Herzegovina	39.7	40.0	41.1	41.6	41.8	43.9	31.1	29.0	23.4	24.1
Croatia	17.0	16.3	14.7	14.1	13.6	12.6	11.1	9.6	8.4	9.1
Macedonia	32.2	30.5	31.9	36.7	37.2	37.3	36.0	35.0	33.8	32.2
Montenegro	19.3	21.2	20.7	22.7	27.7	30.3	29.6	19.3	16.8	19.1
Serbia	**13.3**	**13.3**	**14.5**	**16.0**	**18.7**	**21.1**	**21.0**	**18.3**	**13.6**	**16.1**
Kosovo	.	57.1	55.0	49.7	39.7	41.4	44.9	43.6	47.5	.
Bulgaria	16.4	19.5	18.2	13.7	12.1	10.1	9.0	6.9	5.6	6.8
Romania	7.3	6.8	8.6	7	8.1	7.2	7.3	6.4	5.8	6.9
Slovenia	6.7	6.2	6.3	6.7	6.3	6.5	6.0	4.9	4.4	5.9
EU-15	7.7	7.3	7.6	8	8.1	8.1	7.7	7	7.1	9

Male (in % male labour force)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Albania	14.9	14.2	13.6	12.9	12.4	12.1	11.8	14.4	12.5	.
Bosnia & Herzegovina	.	.	.	.	.	.	28.9	26.7	21.4	23.1
Croatia	15.9	14.4	13.2	12.8	12.0	11.6	9.8	8.4	7.0	8.0
Macedonia	30.5	29.5	31.7	37.0	36.7	36.5	35.3	34.6	33.5	.
Montenegro	.	.	.	.	.	.	.	18.1	15.9	18.0
Serbia	**11.1**	**11.5**	**12.9**	**15.1**	**15.3**	**17.0**	**18.1**	**16.0**	**11.9**	**14.8**
Kosovo	.	51.8	45.2	40.3	31.5	32.9	34.6	38.5	42.7	.
Bulgaria	16.7	20.2	18.9	14.1	12.6	10.3	8.7	6.5	5.5	7.0
Romania	8	7.3	9.2	7.6	9.1	7.8	8.2	7.2	6.7	7.7
Slovenia	6.5	5.7	5.9	6.3	5.9	6.1	4.9	4.0	4.0	5.9
EU-15	6.7	6.5	6.9	7.3	7.4	7.5	7.1	6.4	6.7	9.1

Female (in % of female labour force)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Albania	19.3	19.9	19.1	18.2	17.5	17.2	16.8	12.2	13.5	.
Bosnia & Herzegovina	.	.	.	.	.	.	34.9	32.9	26.8	25.6
Croatia	18.2	18.7	16.5	15.6	15.6	13.8	12.7	11.2	10.1	10.3
Macedonia	34.9	32.0	32.3	36.3	37.8	38.4	37.2	35.6	34.2	.
Montenegro	.	.	.	.	.	.	.	20.9	17.9	20.4
Serbia	**15.9**	**15.7**	**16.5**	**17.2**	**23.1**	**26.5**	**24.9**	**21.2**	**15.8**	**17.8**
Kosovo	.	69.9	74.5	71.9	60.7	60.5	61.6	55.2	59.6	.
Bulgaria	16.2	18.6	17.3	13.2	11.5	9.8	9.3	7.3	5.8	6.6
Romania	6.5	6.1	7.9	6.4	6.9	6.4	6.1	5.4	4.7	5.8
Slovenia	7.0	6.8	6.8	7.1	6.9	7.1	7.2	5.9	4.8	5.8
EU-15	8.9	8.3	8.5	8.8	8.9	8.9	8.5	7.8	7.6	9

Source: Eurostat; national LFS.

Table A4

Youth unemployment rates in South Eastern Europe

in % of labour force 15-24

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Albania	.	.	26.8	.	.	.	.	20.1	27.2	.
Bosnia & Herzegovina	.	.	.	.	.	.	62.3	58.4	47.5	48.7
Croatia	43.1	41.7	34.4	35.8	33.8	32.0	28.8	24.0	22.0	25.1
Macedonia	59.9	56.1	58.4	65.7	64.8	62.6	59.8	57.7	56.4	55.1
Montenegro	.	.	.	.	.	.	.	.	.	.
Serbia	**50.2**	**46.4**	**45.3**	**44.8**	**48.1**	**47.7**	**47.8**	**43.7**	**35.2**	**41.6**
Kosovo	.	80.0	77.7	74.9	66.5	70.5	75.5	70.0	73.0	.
Bulgaria	33.3	39.3	35.6	27.1	24.5	22.3	19.5	15.1	12.7	16.2
Romania	17.8	17.6	22.2	19.5	22.3	20.2	21.4	20.1	18.6	20.8
Slovenia	16.4	15.7	14.8	15.3	14.0	15.9	13.9	10.1	10.4	13.6
EU-15	16.1	14.1	14.7	15.3	15.9	16.6	15.9	14.9	15.4	19.5

Source: Eurostat.

Table A5

Economic activity rates in South Eastern Europe

Total (in % of working-age population 15-64)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Albania	66.2	62.3	61.8	60.1	58.8	57.8	53.7	65.2	61.9	.
Bosnia & Herzegovina	.	.	.	.	.	.	51.3	52.2	53.5	53.2
Croatia	62.2	62.2	62.9	62.4	63.7	63.3	62.6	63.2	63.2	62.4
Macedonia	.	.	.	.	.	.	62.2	62.8	63.5	64.0
Montenegro	60.4	57.1	59.1	58.9	51.7	49.9	49.0	53.0	51.9	51.1
Serbia	68.2	68.9	68.4	68.9	66.4	65.2	63.6	63.4	62.7	60.6
Kosovo	.	45.6	52.8	50.3	46.2	49.2	52.3	46.8	46.2	.
Bulgaria	61.6	63.4	62.5	61.7	62.8	62.1	64.5	66.3	67.8	67.2
Romania	69.6	68.3	64.2	63.4	63.9	62.3	63.6	63	62.9	63.1
Slovenia	67.4	67.5	68.5	66.9	69.9	70.7	70.9	71.3	71.8	71.8
EU-15	69	69	69.6	70.1	70.5	71.2	71.8	72	72.5	72.5

Male (in % of working-age population 15-64)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Albania	77.7	74.6	74.0	71.9	69.9	68.5	63.4	74.4	72.1	.
Bosnia & Herzegovina	.	.	.	.	.	.	65.5	67.0	67.7	67.0
Croatia	68.7	69.3	69.9	69.5	70.5	70.0	68.5	70.1	70.0	68.0
Macedonia	.	.	.	.	.	.	75.0	74.8	76.6	77.6
Montenegro	67.6	68.0	69.9	69.0	60.9	57.4	58.0	59.0	60.4	59.3
Serbia	76.7	77.5	77.0	79.0	75.1	74.3	72.7	71.9	71.2	68.7
Kosovo	.	64.5	72.0	71.7	68.1	69.0	70.8	65.7	66.2	.
Bulgaria	67.4	67.9	66.8	66.3	67.2	67	68.8	70.6	72.5	72
Romania	75.7	74.3	71	70.2	70.8	69.4	70.7	70.1	70.6	70.9
Slovenia	71.7	72.5	72.9	71.6	74.2	75.1	74.9	75.8	75.8	75.6
EU-15	78.2	78.1	78.3	78.5	78.5	79	79.2	79.3	79.5	79.2

Female (in % of working-age population 15-64)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Albania	54.6	49.4	49.1	47.7	47.2	46.8	43.6	56.2	52.8	.
Bosnia & Herzegovina	.	.	.	.	.	.	37.4	37.8	39.5	39.7
Croatia	56.0	55.5	56.2	55.6	57.1	56.7	56.9	56.5	56.6	57.0
Macedonia	.	.	.	.	.	.	49.2	50.4	50.2	50.0
Montenegro	53.0	46.8	48.4	49.1	43.1	42.9	41.0	47.0	43.9	43.3
Serbia	59.9	60.2	59.9	58.8	57.9	56.2	54.5	54.9	54.4	52.8
Kosovo	.	26.8	34.5	29.5	25.3	29.9	33.7	28.4	26.1	.
Bulgaria	56.1	59.1	58.4	57.1	58.4	57.3	60.2	62.1	63.1	62.5
Romania	63.6	62.4	57.6	56.7	57.2	55.3	56.6	56	55.2	55.4
Slovenia	63.1	62.5	63.9	62.1	65.6	66.1	66.7	66.6	67.5	67.9
EU-15	59.9	60	60.9	61.7	62.4	63.5	64.3	64.7	65.4	65.9

Source: Eurostat.

Table A6

Registered unemployed and vacancies by occupation groups

Occupation groups	2004		2005		2006		2007		2008		2009	
	Unemployed	Vacancies	Unemployed	Vacancies	Unemployed	Vacancies	Unemployed	Vacancies	Unemployed	Vacancies	Unemployed	Vacancies
Agriculture, food production and processing	49,248	171,83	50,094	24,069	50,647	25,770	42,947	26,825	39,485	27,155	40,253	19,963
Forestry and wood processing	10,311	4,026	10,633	5,758	11,255	6,802	9,727	7,484	8,904	7,798	9,123	4,883
Geology, mining and metallurgy	5,432	2,198	5,183	2,134	5,400	2,900	4,653	3,082	4,024	4,284	3,977	2,844
Mechanical engineering and metal processing	118,217	38,066	119,088	43,046	121,521	49,396	107,485	57,247	98,739	61,454	101,921	35,018
Electrotechnical engineering	39,960	16,024	40,323	18,764	40,821	21,554	34,963	23,635	31,795	26,565	34,123	14,920
Chemistry, non-metals and typography	27,232	10,638	27,453	12,538	27,660	15,270	23,906	16,172	22,625	15,976	22,702	9,362
Textile and leather processing	58,620	16,400	58,787	19,230	58,007	21,717	49,803	23,966	46,139	23,336	46,651	13,322
Public utility, upholstery and painting services	4,808	13,083	5,063	14,976	5,236	17,211	4,436	19,283	4,069	21,736	4,035	14,338
Geodesy and civil engineering	17,427	15,144	17,409	19,167	17,500	23,283	15,240	26,864	13,715	28,948	14,989	16,362
Transport	21,358	22,677	22,541	29,625	22,889	34,351	19,568	37,732	18,147	39,862	18,556	26,995
Trade, hotels & restaurants and tourism	82,579	98,450	84,740	121,625	84,521	149,616	71,718	170,359	67,910	177,082	67,905	116,372
Economics, law and administration	71,719	68,645	74,753	85,518	75,905	100,753	67,734	105,154	65,185	113,069	67,905	77,903
Education and upbringing	11,853	34,412	12,338	33,600	12,701	40,006	11,029	37,869	10,788	38,427	11,883	29,623
Social and humanistic field	5,637	3,888	6,158	4,524	6,414	5,356	5,753	4,521	5,520	4,337	6,083	3,288
Mathematics and other natural sciences	10,654	2,083	10,587	2,097	10,321	2,536	9,039	2,340	8,517	2,473	9,047	2,037
Culture, art and media	9,247	5,103	9,417	5,422	8,993	6,188	7,470	7,369	6,967	6,907	6,937	4,785
Health, pharmacy and social protection	19,079	22,458	21,758	23,102	21,759	28,554	18,728	27,795	17,492	30,854	17,227	21,233
Fitness and sports	354	356	406	327	510	499	460	533	497	589	599	691
Other	295,993	116,860	318,966	137,036	334,197	155,378	280,440	160,602	257,103	159,409	246,456	102,177
Total	859,728	507,694	895,697	602,558	916,257	707,140	785,099	758,832	727,621	790,261	730,372	516,116

Source: National Employment Service's Business Reports 2004-2009.

Table A7

Registered unemployed and vacancies by occupation group, in %

Occupation groups	2004		2005		2006		2007		2008		2009	
	Unemployed	Vacancies	Unemployed	Vacancies	Unemployed	Vacancies	Unemployed	Vacancies	Unemployed	Vacancies	Unemployed	Vacancies
Agriculture, food production and processing	5.7	3.4	5.6	4.0	5.5	3.6	5.5	3.5	5.4	3.4	5.5	3.9
Forestry and wood processing	1.2	0.8	1.2	1.0	1.2	1.0	1.2	1.0	1.2	1.0	1.2	0.9
Geology, mining and metallurgy	0.6	0.4	0.6	0.4	0.6	0.4	0.6	0.4	0.6	0.5	0.5	0.6
Mechanical engineering and metal processing	13.8	7.5	13.3	7.1	13.3	7.0	13.7	7.5	13.6	7.8	14.0	6.8
Electrotechnical engineering	4.6	3.2	4.5	3.1	4.5	3.0	4.5	3.1	4.4	3.4	4.7	2.9
Chemistry, non-metals and typography	3.2	2.1	3.1	2.1	3.0	2.2	3.0	2.1	3.1	2.0	3.1	1.8
Textile and leather processing	6.8	3.2	6.6	3.2	6.3	3.1	6.3	3.2	6.3	3.0	6.4	2.6
Public utility, upholstery and painting services	0.6	2.6	0.6	2.5	0.6	2.4	0.6	2.5	0.6	2.8	0.6	2.8
Geodesy and civil engineering	2.0	3.0	1.9	3.2	1.9	3.3	1.9	3.5	1.9	3.7	2.1	3.2
Transport	2.5	4.5	2.5	4.9	2.5	4.9	2.5	5.0	2.5	5.0	2.5	5.2
Trade, hotels & restaurants and tourism	9.6	19.4	9.5	20.2	9.2	21.2	9.1	22.5	9.3	22.4	9.3	22.5
Economics, law and administration	8.3	13.5	8.3	14.2	8.3	14.2	8.6	13.9	9.0	14.3	9.3	15.1
Education and upbringing	1.4	6.8	1.4	5.6	1.4	5.7	1.4	5.0	1.5	4.9	1.6	5.7
Social and humanistic field	0.7	0.8	0.7	0.8	0.7	0.8	0.7	0.6	0.8	0.5	0.8	0.6
Mathematics and other natural sciences	1.2	0.4	1.2	0.3	1.1	0.4	1.2	0.3	1.2	0.3	1.2	0.4
Culture, art and media	1.1	1.0	1.1	0.9	1.0	0.9	1.0	1.0	1.0	0.9	0.9	0.9
Health, pharmacy and social protection	2.2	4.4	2.4	3.8	2.4	4.0	2.4	3.7	2.4	3.9	2.4	4.1
Fitness and sports	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other	34.4	23.0	35.6	22.7	36.5	22.0	35.7	21.2	35.3	20.2	33.7	19.8
Total	100											

Source: Own calculation based on National Employment Service's Business Reports 2004–2009.

Table A8

Registered vacancies and employment by economic sector

Economic sector	2004		2005		2006		2007		2008		2009[1]	
	Vacancy	Filled vacancies, %	Vacancy	Filled vacancies, %	Vacancy	Filled vacancies, %	Vacancy	Filled vacancies, %	Vacancy	Filled vacancies, %	Vacancy	Filled vacancies, %
Agriculture, forestry and water works supply	14,613	88.5	16,767	92.0	17,338	91.6	17,464	94.4	17,447	95.9	12,839	119.1
Fishing	487	79.7	500	85.6	466	88.2	465	88.0	729	90.1	546	111.0
Mining and quarrying	4,598	84.9	4,522	89.8	4,110	92.7	5,409	87.3	5,096	98.1	2,687	133.7
Manufacturing	126,781	87.1	152,927	89.1	174,535	90.5	190,933	92.4	196,352	94.1	119,184	123.9
Electricity, gas and water supply	6,894	94.3	6,664	93.2	5,283	90.5	5,553	94.2	5,642	98.5	4,558	118.7
Construction	32,593	83.1	43,427	85.4	49,283	88.4	56,951	88.8	58,336	92.3	32,226	123.3
Wholesale and retail trade, repair	119,755	92.0	143,810	93.2	180,507	92.4	195,863	94.4	198,873	95.5	129,178	129.5
Hotels and restaurants	18,732	87.6	23,893	91.8	27,755	92.0	28,902	94.4	30,734	96.1	20,356	124.3
Transport, storage and communications	26,267	87.7	30,827	91.4	37,968	89.3	37,049	94.0	37,731	97.0	26,168	131.7
Financial intermediation	14,482	95.8	20,587	94.2	22,245	95.7	20,674	93.6	22,836	95.7	13,332	136.5
Real estate, renting activities	26,201	88.8	39,078	91.1	49,891	92.5	60,671	93.1	67,977	94.7	48,100	131.0
Public administration and social insurance	14,640	87.8	17,802	84.4	16,150	91.6	16,445	91.0	19,149	94.1	11,653	112.1
Education	56,298	68.6	53,182	73.7	63,665	70.8	61,169	76.0	61,144	75.6	47,083	105.1
Health and social work	28,976	85.1	29,865	90.0	36,391	87.2	37,693	92.5	40,174	94.9	27,829	126.8
Other community, social and personal service activities	16,360	93.5	18,671	93.0	21,470	92.5	23,528	95.8	27,983	94.3	20,323	120.5
Households with employed persons	9	66.7	27	96.3	78	94.9	56	91.1	46	97.8	42	140.5
Extra-territorial organizations and bodies	8	100.0	9	100.0	5	100.0	7	100.0	12	100.0	12	100.0
Total	507,694	86.6	602,558	89.1	707,140	89.3	758,832	91.7	790,261	93.4	516,116	124.6

1) The data on vacancies for 2009 is not methodologically comparable with the previous time series, due to changes of the law on employment and insurance from unemployment. Employers are not obliged to recode every vacancy according to new rules, so that the number of registered vacancies is underestimated

Source: Own calculation based on National Employment Service's Business Reports 2004-2009.

Table A9

Registered unemployed, registered vacancies and unfilled gap by district

District	2004			2005			2006			2007			2008			2009		
	Registered unemployed	Registered vacancies	Gap as % of registered vacancies	Registered unemployed	Registered vacancies	Gap as % of registered vacancies	Registered unemployed	Registered vacancies	Gap as % of registered vacancies	Registered unemployed	Registered vacancies	Gap as % of registered vacancies	Registered unemployed	Registered vacancies	Gap as % of registered vacancies	Registered unemployed	Registered vacancies	Filled vacancies % of registered vacancies
Belgrade	132,735	167,176	10.4%	143,294	203,446	8.6%	139,984	225,106	7.8%	114,219	242,625	6.5%	98,057	252,589	6.1%	91,251	139,376	144.6%
Borski	15,664	8,615	10.6%	14,829	8,698	5.4%	16,425	9,543	8.8%	13,891	11,294	6.0%	12,869	13,080	5.1%	12,611	8,228	132.0%
Branicevski	9,005	8,198	14.2%	9,652	10,726	16.8%	10,261	12,498	11.4%	9,807	14,047	11.9%	9,684	16,937	14.5%	9,389	9,894	136.2%
Zajecarski	15,231	9,235	19.7%	14,396	8,199	8.5%	14,528	11,839	16.9%	13,921	10,943	13.1%	13,752	11,968	5.7%	14,362	9,105	103.7%
Zapadno-backi	31,461	12,766	7.0%	31,718	16,296	7.1%	30,143	18,039	6.3%	25,168	17,905	8.6%	21,641	17,061	6.7%	21,961	13,124	110.8%
Zlatiborski	43,162	16,198	8.3%	43,708	18,825	7.6%	43,754	20,988	12.4%	37,822	23,457	4.9%	34,961	25,822	5.7%	34,277	20,327	117.1%
Jablanicki	35,683	7,504	7.6%	36,123	7,936	1.5%	38,528	10,161	12.0%	35,369	11,201	17.6%	35,176	12,348	6.3%	35,576	7,361	126.7%
Juzno-banatski	40,883	20,389	8.9%	40,594	22,189	14.6%	41,609	27,082	8.3%	34,834	28,114	7.7%	31,147	26,682	5.6%	32,452	18,542	118.2%
Juzno-backi	77,610	37,528	36.9%	82,091	47,126	15.3%	83,479	71,624	21.7%	64,138	77,389	16.1%	61,341	75,412	8.4%	65,079	55,383	119.4%
Kolubarski	16,054	10,596	7.2%	16,971	13,253	2.8%	16,629	18,252	10.9%	12,216	20,543	1.0%	11,040	18,841	3.0%	12,461	15,447	101.0%
Macvanski	48,122	19,632	8.7%	50,173	20,959	3.7%	49,328	23,285	7.9%	39,707	26,965	2.3%	37,378	28,214	4.1%	36,743	39,784	68.3%
Moravicki	30,163	16,063	16.8%	27,213	18,133	11.0%	28,245	20,965	9.0%	23,261	21,173	7.1%	21,630	24,169	4.3%	21,008	16,086	133.0%
Nisavski	47,204	29,648	10.6%	48,452	30,839	10.3%	52,006	35,762	4.2%	52,023	36,738	5.0%	50,528	39,326	3.2%	47,435	28,978	108.5%
Pirotski	12,611	6,457	13.2%	13,543	7,185	23.2%	15,694	10,251	3.6%	15,332	10,730	4.1%	15,025	9,893	1.6%	15,125	5,552	150.0%
Podunavski	20,118	9,552	0.5%	24,782	11,863	16.6%	26,959	12,911	26.0%	18,886	14,993	14.0%	15,728	17,609	11.4%	15,588	9,332	126.4%
Pomoravski	21,212	14,000	6.5%	25,058	16,808	1.6%	28,040	18,837	1.5%	25,006	18,931	-0.4%	26,304	18,498	2.1%	27,086	14,900	99.1%
Pcinjski	30,525	9,371	22.3%	33,926	12,856	26.6%	36,179	13,091	18.0%	31,369	16,657	27.0%	27,864	14,384	9.7%	30,306	12,636	97.3%
Rasinski	29,442	12,072	8.4%	28,745	12,048	7.5%	28,896	13,345	14.9%	27,696	13,283	9.7%	27,282	13,774	6.0%	27,684	9,514	111.6%
Raski	39,958	11,089	12.9%	43,030	12,244	16.4%	44,007	14,816	8.2%	47,582	17,040	8.8%	48,977	17,408	6.7%	49,859	36,511	46.2%
Severno-banatski	18,883	11,918	37.4%	18,017	15,336	27.1%	17,936	21,559	29.1%	15,177	22,321	7.2%	15,660	24,681	13.7%	14,840	13,500	133.4%
Severno-backi	26,255	17,732	13.9%	26,940	24,025	7.9%	26,191	27,296	7.5%	15,297	26,976	7.2%	13,475	27,152	8.3%	16,076	18,657	111.7%
Srednje-banatski	27,639	14,143	20.0%	27,655	17,214	18.5%	29,343	18,663	15.8%	26,161	21,336	20.3%	20,526	24,671	14.6%	19,842	15,381	110.9%
Sremski	47,179	17,207	2.3%	46,377	20,254	4.2%	46,789	22,842	3.3%	34,564	24,704	2.9%	27,819	26,250	6.7%	26,354	16,497	117.9%
Toplicki	11,264	4,176	-0.3%	13,825	5,925	11.0%	14,247	7,032	9.0%	14,219	7,150	8.0%	14,407	7,290	8.4%	15,333	4,579	135.1%
Sumadijski	31,665	16,429	22.4%	34,585	20,175	22.1%	37,057	21,353	7.1%	37,434	22,317	5.6%	35,350	26,202	2.5%	35,754	19,568	102.8%
Kosovsko-Mitrovacki				10,915	779	85.0%										1,920	2	0.0%
Total	859,728	507,694	13.4%	906,612	603,337	11.0%	916,257	707,140	10.7%	785,099	758,832	8.3%	727,621	790,261	6.6%	730,372	558,264	115.2%

Source: Own calculation based on National Employment Service's Business Reports 2004-2009.

Table A10

Administrative unemployment rates by district

District	2007	2008	2009
Belgrade	16.2%	14.1%	13.4%
Borski	26.5%	24.1%	26.3%
Branicevski	14.6%	14.0%	15.2%
Zajecarski	28.8%	28.6%	33.1%
Zapadno-backi	34.9%	30.7%	34.0%
Zlatiborski	31.7%	29.5%	31.4%
Jablanicki	39.5%	39.8%	44.2%
Juzno-banatski	31.2%	28.5%	31.0%
Juzno-backi	25.1%	21.4%	23.5%
Kolubarski	17.9%	15.3%	17.1%
Macvanski	32.7%	29.6%	31.9%
Moravicki	30.4%	26.6%	28.0%
Nisavski	31.8%	31.8%	33.2%
Pirotski	33.7%	32.6%	35.8%
Podunavski	28.4%	23.4%	23.8%
Pomoravski	26.2%	26.2%	29.3%
Pcinjski	35.8%	32.9%	36.3%
Rasinski	29.3%	28.3%	31.6%
Raski	35.7%	36.3%	39.6%
Severno-banatski	29.3%	28.1%	29.0%
Severno-backi	25.1%	19.8%	22.3%
Srednje-banatski	35.8%	32.7%	32.6%
Sremski	35.4%	29.5%	28.8%
Toplicki	38.8%	40.1%	44.7%
Sumadijski	30.7%	30.9%	33.8%
Kosovsko-Mitrovacki	n.a.	n.a.	97.5%
Total	26.8%	24.6%	26.1%

Source: National Employment Service's Business Reports 2004–2009.

Table A11

Serbia: Key economic indicators

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
GDP per capita (EUR)	980	1,700	2,100	2,300	2,600	2,700	3,100	3,900	4,600	4,300
GDP, real growth (%)	77.5	87.9	22.8	13.0	13.2	15.5	10.8	9.8	12.1	11.8
GDP, nominal growth (%)	86.9	98.4	27.6	15.8	22.6	21.9	16.5	17.3	18.3	8.5
Exports of goods and NFS (% of GDP)	10.9	24.6	22.9	23.0	24.7	28.8	32.0	31.4	.	.
Imports of goods and NFS (% of GDP)	16.8	42.5	42.7	44.0	52.6	49.6	52.8	55.9	.	.
Exchange rate RSD/EUR, average	15.04	59.46	60.68	65.05	72.57	82.91	84.19	79.98	81.47	93.92
Gross external debt (% of GDP), eoy	178.0	98.8	68.1	65.9	59.2	66.3	59.9	61.2	70.9	74.0
Industrial physical output, growth (%)	11.4	0.1	1.8	-3.0	7.1	0.8	4.7	3.7	1.1	-12.1
Construction projects vol., growth (%)	16.8	-14.3	-7.4	10.8	3.5	2.0	7.7	10.8	4.6	-17.1
Producer prices, growth (%)	102.6	87.7	8.8	4.6	9.1	14.2	13.3	5.9	12.4	5.6
Consumer prices, growth (%)	79.6	93.3	16.6	9.9	11.4	16.2	11.7	7.0	11.7	8.6
Reg. employment, 1000 pers, avg, excl. farmers	2,097.2	2,101.7	2,066.7	2,041.4	2,050.9	2,069.0	2,025.6	2,002.3	1,999.5	.
Reg. unemployment, 1000 pers, eoy	731.3	780.5	904.5	944.9	859.7	895.7	916.3	785.1	727.6	730.4
Gross average wage, growth (%)	90.7	128.8	52.6	25.3	23.7	24.1	24.4	22.0	17.9	-3.3

Source: wiiw Annual Database incorporating national statistics.

Table A12

Serbia: Key employment indicators, LFS based, average

	Employment, 1000 persons	Unemployment, 1000 persons	Employment rate (age 15+) (%)	Unemployment rate (%)	Youth unemployment rate (%)	Long-term unemployed in % of total unemployed
2000	3,093,676	425,571	50.1	12.1	.	.
2001	3,105,598	432,677	50.3	12.2	.	.
2002	3,000,220	459,599	48.6	13.3	.	.
2003	2,918,589	500,325	47.6	14.6	.	.
2004	2,930,846	665,436	45.2	18.5	48.1	77.4
2005	2,733,412	719,881	42.3	20.8	47.7	79.1
2006	2,630,691	693,024	40.4	20.9	47.8	80.6
2007	2,655,736	585,472	41.8	18.1	43.7	81.3
2008	2,821,724	445,384	44.4	13.6	35.1	71.2
2009	2,616,437	502,982	41.2	16.1	41.6	65.0

Note: Long-term unemployed = persons unemployed more than 12 months.

Source: wiiw Annual Database, Serbian Labour Force Survey Results, various issues.

Table A13

Serbia: Employment by activities (LFS) in %

	2003	2004	2005	2006	2007	2008	2009
Agriculture, hunting and forestry	.	23.9	23.2	20.5	20.8	25.1	23.8
Fishing	.	0.1	0.1	0.1	0.0	0.1	0.1
Mining and quarrying	.	1.3	1.2	1.2	1.6	1.2	1.0
Manufacturing	.	18.8	18.2	19.7	19.6	17.1	17.2
Electricity, gas, water supply	.	1.6	2.1	2.4	2.2	1.6	1.8
Construction	.	5.2	6.1	6.1	6.1	6.3	5.2
Wholesale, retail trade, repair motor veh.	.	15.1	14.9	15.5	15.0	14.8	14.2
Hotels and restaurants	.	2.8	2.9	3.2	2.7	3.0	2.8
Transport, storage, telecommunications	.	5.6	5.6	5.8	6.4	5.6	5.7
Financial intermediation	.	1.5	1.6	1.6	1.6	2.0	2.1
Real estate, renting & business activities	.	2.8	2.6	2.7	3.3	3.3	3.5
Public admin., defence, compuls.soc.sec.	.	5.8	5.8	5.4	5.3	4.8	4.9
Education	.	5.1	5.2	4.9	4.4	4.3	5.9
Health and social work	.	5.7	5.8	6.6	6.3	6.3	6.7
Oth. community, social & personal serv.	.	4.2	4.4	4.2	4.3	4.4	4.6
Private households with employed pers.	.	0.3	0.2	0.3	0.2	0.2	0.3
Extra territorial organizations & bodies	.	0.1	0.1	0.0	0.1	0.0	0.0
Other not elsewhere classified activities	.	0.1	0.0	0.0	0.0	0.0	0.0
Employed persons total		**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: wiiw Annual Database incorporating national statistics.

Table A14

Serbia: GDP by economic activities, in %

	2002	2003	2004	2005	2006	2007	2008	2009
Agriculture, hunting and forestry	13.3	12.1	13.3	11.9	11.3	9.8	10.0	10.6 [1)]
Fishing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.
Mining and quarrying	1.5	1.5	1.4	1.4	1.4	1.3	1.3	1.3
Manufacturing	16.6	15.2	15.3	14.4	14.5	14.2	13.6	11.9
Electricity, gas, water supply	3.2	3.2	2.9	2.9	2.8	2.7	2.6	2.7
Construction	3.0	3.3	3.1	3.0	3.1	3.2	3.2	2.7
Wholesale, retail trade, repair motor veh.	7.2	7.9	8.5	9.8	10.3	11.6	11.7	11.0
Hotels and restaurants	1.0	0.9	0.8	0.8	0.7	0.7	0.7	0.6
Transport, storage, telecommunications	7.2	7.7	8.2	9.6	11.8	13.2	14.1	15.6
Financial intermediation	3.3	3.1	3.1	3.3	3.5	3.8	4.1	4.4
Real estate, renting & business activities	14.1	14.1	13.2	12.9	12.8	12.3	12.3	12.9
Public admin., defence, compuls.soc.sec.	6.4	6.5	6.2	5.9	5.4	5.0	4.8	13.2 [2)]
Education	3.3	3.2	3.0	2.8	2.6	2.5	2.4	.
Health and social work	5.0	4.9	4.5	4.3	3.9	3.6	3.5	.
Oth. community, social & personal serv.	2.1	2.1	1.9	1.9	1.8	1.7	1.7	.
Private households with employed pers.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	.
FISIM	-2.5	-2.0	-2.1	-2.3	-2.3	-2.4	-2.6	-2.8
Gross Value Added	87.3	85.8	85.7	85.2	86.1	85.8	86.2	86.9
Taxes less subsidies on products	15.2	16.2	16.4	17.1	16.2	16.6	16.3	15.9
Gross domestic product total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

1) A+B. - 2) L+M+N+O+P.

Source: wiiw Annual Database incorporating national statistics.

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