

# **IMPACT OF THE FINANCIAL CRISIS ON THE LABOR MARKET AND LIVING CONDITIONS OUTCOMES**

Gordana Matković

Boško Mijatović

Marina Petrović



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## Contents

Executive summary	4
1. Economic trends – before and during the crisis	11
2. Initial labor market conditions	14
3. Pre-crisis living conditions	19
4. Impact of the crisis through the labor market	23
5. The impact of the crisis on poverty and wages	38
6. Some policy recommendations	47
Annex 1 – Labor market before and during the crisis	50
Annex 2 – Poverty before and after the crisis	61
References	74

## EXECUTIVE SUMMARY

The spilling over of the financial and economic crisis to Serbia proceeded according to a similar pattern and practically at the same time as in other transition economies. After a strong multi-year GDP growth of above 5 percent annually from 2005, the first signs of the crisis appeared in the third quarter of 2008, with a drop in exports and in manufacturing output. In the first half of 2009, GDP decreased in real terms at a rate of approximately -4 percent. Especially affected was the manufacturing industry, where the output was reduced by a fifth.

Such trends of the GDP are the result of both the reduced demand for Serbian products in the world and the reduced inflow of foreign capital, which has led to a drop in the domestic demand. Although the Serbian economy faces many structural problems, it managed to stay on its feet. This is the result of both the mildness of the recession and Serbia's low dependence on exports, as well as of the support of international institutions and certain timely interventions by the National Bank. According to different estimates GDP growth next year could reach between 1 and 1.5 percent.

**Pre-crisis labor market conditions in Serbia were characterized by constant low activity and employment rates** (barely above 50 percent) **and a high but decreasing unemployment rate** (from more than 20.8 percent in 2005 to 13.6 percent in 2008). Both indicators showed significant gender differences, indicating the worse position of women in the Serbian labor market. In 2008 the employment rate of women was by 17 percentage points lower and the unemployment rate was by 3.9 percentage points higher compared to men. The highest unemployment rate characterized the youth. There were no significant regional differences either for employment or for unemployment rate.

According to the LFS, the total *employment* from 2005 until 2008 ranged from 2.6 to 2.8 million, indicating a U-shaped curve. In 2007 and in 2008 there was a discontinuation in the yearlong trend of employment decrease and there was even a slight increase. In April 2008 employment reached 2.84 million, out of which 658 thousand in the informal economy. Women represented 2/5 of the employed

Beside a low employment level, an additional negative feature of the labor market was a constant decrease in employment within the modern sector i.e. large businesses economy and an increase in lower-quality jobs: occasional and seasonal jobs, jobs within the agricultural sector and self-employment...

Although *unemployment* decreased it was still high and long-term in nature. The number of unemployed decreased from 720 thousand in 2005 to 433.6 thousand in April 2008. The sharpest decrease of unemployment observed in 2008 was partly due to methodological reasons. The decrease in the number of unemployed in 2008 cannot be termed as particularly positive, since it did not necessarily result in their employment, but rather their transfer into the category of inactive ("discouraged").

Labor market flexibility is generally low, especially in the formal sector where the European system of protection of workplaces is enforced.

*Wages* grew rapidly during the transition, up until 2007, reaching each year around 10 percent in real terms. Wage growth was significantly faster than productivity growth. In 2008, according to LFS real wages decreased, but this can be attributed to methodological changes i.e. exclusion of wages from additional jobs from the questionnaire. According to official wage statistics, wage growth was noted in 2008 as well, at the rate of 3.9 percent. Throughout the entire period wages in Belgrade were significantly higher than in the other two regions. Men had higher average wages compared to women. The difference in the observed period ranged from 11 to 15 percent.

**Pre-crisis living conditions in Serbia were marked with a significant reduction in absolute poverty.** This has been the trend documented by both LSMS and HBS data since 2002. According to the HBS data the headcount index of poverty declined from 8.8 percent in 2006 to 6.1 percent in the first three quarters of 2008. Poverty gap and poverty severity indexes were also low and they almost halved in the observed period.

Although in late 2008 there was still a significant difference between poverty of non-urban and urban populations, poverty has fallen quite significantly in non-urban areas. In fact, the whole decrease in poverty during the observed period can be attributed to the decrease in non-urban poverty since the poverty in urban areas has not changed since 2006. Poverty incidence in 2008 (Q1-Q3) differed by regions, ranging from only 2.3 percent in Belgrade to 6.6 percent in Central Serbia and 8.4 percent in Vojvodina. Compared to the other two regions, the reduction of poverty in Vojvodina was negligible, although these findings need to be interpreted with caution due to the unintended alterations in the sample.

In 2008, there was no significant gender difference in poverty incidence. Hence, the HBS analysis showed that gender had no significant impact on overall poverty incidence and that it did not play a substantive role in the explanation of the poverty profile for Serbia in the pre-crisis period.

Poverty in Serbia is strongly correlated with employment status and education level. Population in the households headed by unemployed person not only had the highest incidence of poverty (16.5 percent), but, contrary to the other groups, they appeared to have been more exposed to risk of poverty in 2008 (Q1-Q3) than in the preceding years. Population in households with heads with primary school education or less, had a much higher poverty incidence (18.4 percent combined) than the other groups, but their poverty was almost halved in the observed period. Poverty analysis by age reveals that children (0-14) and older than 60 are more affected by poverty in Serbia.

*The consumption distribution* analysis in the pre-crisis period shows a significant increase in household consumption for the majority of households in Serbia and particularly for the households at the bottom end of distribution. Since the consumption of the poorest deciles increased fastest it would be legitimate to conclude that they benefited more from economic growth which led to the increase in their consumption. The possible explanations for such developments lie in the figures on increased wages, pensions, and social transfers that comprise a bulk of the income of the poor.

**The first signs of crisis in the labor market were already apparent towards the end of 2008, but a more significant impact was felt only in the first quarter of 2009.**

**Employment** slightly decreased already in October 2008, while in April 2009 there was a large decrease in employment of 5.8 percent, as a result of a substantial decrease in economic activity. Employment of women has decreased slightly more than employment of men during the entire period, but in the second semester (October 2008 – April 2009) it decreased less, probably as a consequence of a smaller share of women in industries that were hardest hit by the crisis.

Employment largely decreased in non-urban areas already in October 2008, while in the second semester the crisis almost equally hit employment in both urban and non-urban areas. However regional level differences were evident throughout the observed period. By far the most unfavorable trend of employment was present in Central Serbia with a decrease of 10 percent during the period of one year. In Vojvodina, the decrease was 6.8 percent, while Belgrade recorded an employment increase of 1.2 percent.

The informal sector in Serbia still represents the more flexible part of the labor market, adjusting much more quickly to the crisis environment. In this segment of the labor market a significant employment decrease was recorded already in October 2008, and in the following 6 months the employment decrease rate amounted to a high -9.4 percent. In the formal sector employment decrease was practically recorded only in April 2009, with a rate of -4.7 percent.

Observed by industry, the largest employment decrease during the second semester was found in construction, catering, agriculture and manufacturing industry. A more rapid employment decrease in the first three industries was partly due to the significant presence of seasonal temporary labor force and consequently a more flexible market, more sensitive to crisis fluctuations.

Employment decrease was visibly and equally independent from education levels, except in the highest educated category that was practically unaffected by the crisis. White-collar workers were much less affected than those in blue-collar jobs. According to age groups, the youth and younger generations suffered the most job losses.

**Unemployment** grew significantly already in October 2008 by 5.5 percent and again in April 2009 by 6.9 percent, reaching 488,600 persons. The unemployment rate moderately increased to 14.0 percent in October 2008, and then grew more strongly, reaching 15.6 percent in April 2009.

Unemployment grew similarly in all three large regions of Serbia. Urban areas have been more affected, presumably both by continuing restructuring of large systems leading to further shedding of surplus of employees and by the pure nature of the imported crisis. Furthermore, cessation of employment in non-urban areas does not always signify unemployment but often inactivity, since there is a lack of job opportunities.

Unemployment of women grew faster in the first and slower in the second semester. In total, during these 12 months it grew slower than that of men. According to age group, the greatest victims of the crisis were middle aged generations. During the crisis semester the least affected were the most educated and the least educated, whose unemployment practically stagnated, while the most hit were those with primary and secondary education.

Decrease in employment during the crisis did not fully, nor even mostly, spill over into an increase in unemployment. The major part of the spillover was recorded in favor of the non-active, and only a small portion of this transfer can be attributed to retirement. The transfer from

the status of *employed into that of unemployed was mostly recorded* in the modern, formal sector, in urban areas and above-average in Belgrade. There was also a circulation of unemployed and discouraged who shifted into the status of inactive, and to a lesser extent from inactive into unemployed. The latter were probably provoked to look for jobs most likely due to a deterioration of the family situation.

The relative frequency in work status changes was the same in urban and non-urban areas and among regions was highest in Belgrade. This may be explained by higher activity in Belgrade, as the Capital and center of modern economy. Higher work status sensitivity to crisis was shown by persons with secondary and lower education levels, as well as by the youngest (aged 15-30), followed by the oldest (50+), in part due to retirement.

After a strong growth of real *wages* during the current decade, the trend was interrupted over the past year and wages slightly decreased in real terms. This decrease can almost be fully attributed to the changes in the informal sector. Obviously in the formal sector adjustment to the financial crisis was not through the reduction of wages but through employment decrease.

Differences in wages between men and women decreased during the crisis period. Wages in urban and non-urban areas were equally affected in times of crisis, and the differences in wages between regions are decreasing.

Wage sensitivity was quite high in the crisis period (April 2009 – October 2008). During the crisis, wages increased for certain groups of employed and they moved to higher quintiles per wage (the “winners”), while certain categories experienced a drop in wages and moved to lower quintiles (the “losers”). Wage sensitivity to crisis is measured by the percentage of employed who changed quintiles per wage. This percentage fluctuated between one tenth and one fourth, depending on the quintile.

Wage sensitivity is higher in urban than in non-urban areas of Serbia, while the number of “losers” and “winners” is almost the same in both. There are very small differences in sensitivity by region, though in Vojvodina there is a significant majority of “losers”, while in Central Serbia, unexpectedly, there is a somewhat larger share of “winners”.

Industries that are most wage-sensitive to the crisis and at same time have a majority of employed who moved to lower quintiles are electricity production, financial intermediation, transportation and construction and real estate services. The processing industry is also high on the sensitivity scale although only with a marginal majority of “losers”. This is significant owing to the high share of this industry in the overall changes. The findings were to be expected since these sectors are naturally more exposed to the effects of the crisis.

According to occupation the highest wage sensitivity, combined with the highest share of “losers” was found among craftsmen and similar professions. According to education, the only group with a majority of “losers” are the employed with primary education, with a below average wage sensitivity to the crisis. Similarly, per age groups, the only group with a majority of “losers” is the oldest 50+, who are at the same time also the least sensitive to wage changes. The wage sensitivity of women is somewhat lower than total.

**If the pre-crisis period is characterized as the period of poverty reduction, what followed after can certainly be described as the time of deteriorating living standards and increasing poverty in Serbia. Still, the poverty levels in 2009 were lower than in 2006 and 2007.**

In line with labor market trends, poverty slightly increased in the last quarter of 2008. The headcount poverty index reached 7.4 percent (approximately 550 thousand people) in the first half of 2009. While the poverty severity index remained the same, the poverty gap index increased to 1.6 percent, although it was still lower than in 2006 and 2007.

At the level of above 10 percent, poverty incidence in Central Serbia was double the incidence in Belgrade and Vojvodina in the first half of 2009. Compared to the period preceding the crisis, poverty significantly increased in Central Serbia and Belgrade, reaching 2006 levels. Significant poverty increase was also evident in non-urban areas where the poverty risk was two times higher reaching 10.2 percent.

The rising trend in poverty has particularly affected the non-educated and population younger than 15. If in the pre-crisis period the most significant decrease in poverty was observed among the population in households with heads with primary school education or less, during the crisis almost the whole increase in poverty occurred exactly in this group. Its poverty incidence was 30.9 percent in 2009.

Although increasing poverty hit both genders, households with male heads experienced a higher poverty rate - 7.8 percent compared to 6.1 percent in the households headed by women.

Based on findings of the focus group discussions, the position of particularly vulnerable segments of the population (the Roma, IDPs, single mothers, social assistance beneficiaries) has been aggravated during the crisis by decreasing availability of jobs in the informal economy on which they heavily rely, loss of formal employment, smaller chances to find a new job, and decreased wages both in formal and informal economy.

The level of consumption has declined considerably over the short period. The average monthly consumption per equivalent adult has declined by 4.5 percent between the last quarter of 2008 and the first half of 2009. The groups that substantially increased their representation in the lowest deciles of the consumption distribution during the crisis included: the non-educated and the population residing in non-urban areas and in Belgrade and Central Serbia. Interestingly, the share of unemployed remained the same in the observed period. Men and women were almost equally represented in the bottom 20 % and their distribution remained stable over time.

The distribution of the population by consumption deciles according to their labor market status is rather equal, although the share of employed slightly increases and the share of unemployed slightly decreases as they move towards the higher deciles. This rather equal distribution is to be expected since the majority of people in Serbia live in multimember households and share the household income and expenditures.

The primary *coping mechanism* adopted by the Serbian households during the crisis was to postpone or cut down on expenditures. Overall, the households postponed consumption of non-food items, clothing, furniture, home appliances, and other durables (43.5 percent). The second most frequent coping strategy was the use of savings (13.9 percent). Other relatively frequent coping mechanisms included: postponement of covering health costs (6.7 percent), asking for a

loan from a friend or relative (6.3 percent), the deferral of investments in the household's farming activity or the household's business (approx. 6 percent). Although the overall pattern is very similar for all quintiles, the population from the first quintile relayed more than the others on the assistance from friends and relatives, postponement of covering health costs, social assistance, and additional employment. For the richer households there is probably another range of full-fledged coping strategies since almost 1/5 of them did not opt for any of the listed strategies.

For the poorest among the poor qualitative studies suggest that the most important coping strategy is the work in "grey economy" (usually seasonal jobs, cleaning, home assistance, and construction works), followed by the reduction in consumption. Here, the households save on more expensive food items (*meat, fruits, sweets*) and increase the consumption of the cheaper ones (*peas, potatoes, flour*). The savings are also made on clothing and footwear, meeting the children's needs, and payment of utilities. Finally, they often opt for government transfers such as child allowances and social assistance, as well as borrowing from relatives, friends, and neighbors. This ranking of existing coping mechanisms makes the vulnerable rather distinctive from the rest of the population. Among the most vulnerable households, those with children are at a higher risk of poverty.

**With already excessive public spending and a considerable budget deficit there are no financial resources and/or wide range of real options for large scale crisis intervention policies in Serbia.**

Together with the ongoing Government's efforts, it should be noted that during 2010 active labor measures could be additionally targeted towards regions and groups that are particularly at risk during the crisis.

In line with the presented results on poverty and labor market analyses, Central Serbia without Belgrade and the non-urban areas are probably the areas that should be given priority. In addition, in times of crisis programs should be re-designed in order to primarily employ the poor, and not those vulnerable from the aspect of the labor market, such as the long-term unemployed and the youth. For practical reasons, priority could be given to persons from households already targeted as poor i.e. beneficiaries of social assistance and child allowance programs. Thus, priority in public works could be given to able-bodied social welfare beneficiaries who are not eligible for benefits for 3 months during one year, or those who have applied for social assistance, but were turned down because they are just above the administrative poverty line according to the existing law, or those who are beneficiaries of one-off cash social assistance provided by local governments.

In the area of the *state's financial support to the poor*, it is important that the Law on Social Protection is passed as soon as possible and that the articles related to financial social assistance start being implemented already in 2010. The stipulations in the new law are designed in order to increase the value of benefits to current beneficiaries and expand the coverage to reach the households still currently outside the system. These changes have been supported by international financial institutions. In addition, a general recommendation for times of crisis is to extend programs for the poor if they are relatively well targeted, as is the case in Serbia.

Finally, in the forthcoming period it is necessary to carefully monitor and evaluate all the policies that are relevant to the crises, but also to analyze the next LFS and HBS, in order to fully observe the consequences of the crisis in Serbia.

## 1. ECONOMIC TRENDS – BEFORE AND DURING THE CRISIS

**World crisis.** A sharp deterioration of the business environment took place in September 2008, with the breakdown of large financial companies in the US. The risks strongly increased, securities were sold at low prices, and general liquidity was significantly reduced. The impact of the financial crisis on the global economy was reflected through (1) the considerable loan contraction which affected the real sector and directly reduced business activity, (2) the reduction of household assets, resulting in a decline of consumption and (3) the drop of confidence among both households and companies, caused by the uncertainty regarding the future.

In the autumn of 2008, the wave of the financial crisis spilled over to the developing countries as well. The effects of the global crisis acted along two channels – the export demand for their products was reduced as well as inflow of foreign capital. In the fourth quarter of 2008 the GDP of developing countries dropped by 4 percent. The East European countries were especially affected, particularly due to their significant dependence on foreign capital inflow (IMF, 2009a, p.4).

In the second quarter of 2009 the crisis hit the bottom, the decline of economies was halted, and some economies even started to grow again. Nevertheless, these positive trends are weak and the growth did not take any deep root.

**Crisis in Serbia.** Economic growth in Serbia was strong at mid-decade, even though it was not based on strong foundations. After a growth of 5.6 and 5.2 percent in 2005 and 2006, Serbia's economy reached a GDP growth of 6.9 percent in 2007. In the following year of 2008, the growth was at quite decent level of 5.5 percent, despite a decline at the end of the year caused by the world crisis.

This positive growth was to a large extent the result of the large inflow of foreign capital – cross border inter-bank and inter-company credits, the support of international financial institutions, direct and portfolio investments – which generated a high domestic demand and relatively high economic activity derived from it. Thus, for years now Serbia has had a very large payments deficit, which reached 18 percent of the GDP in 2008. Serbia became highly dependent on capital import.

The spilling over of the financial and economic crisis to Serbia proceeded according to a similar pattern and practically at the same time as in other developing countries. Signs of the crisis appeared already in the third quarter, when there was a drop in exports and in manufacturing output. Nevertheless, the growth continued in the fourth quarter of 2008, albeit at a slower pace. The data on GDP trends are presented in the following table:

Table1. Growth/decline rate of the quarterly GDP in constant prices compared to the same quarter of the preceding year (percent)

Year-quarter	%
2008-3	4.6
2008-4	3.0
2009-1	-4.2
2009-2	-4.2
2009-3	-2,3

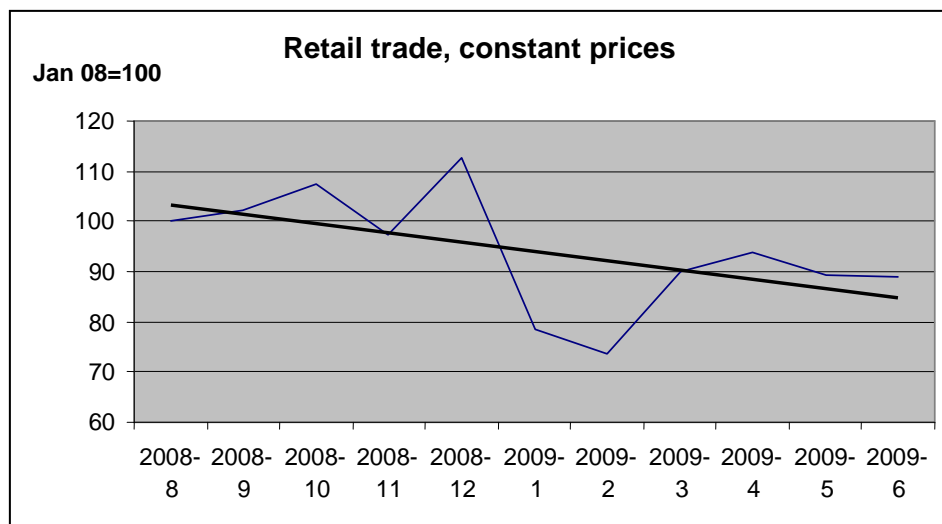
Source: RSO, Communication 356/2009

Such trends of the GDP are the result of both the reduced demand for Serbian products in the world and the reduced inflow of foreign capital, which resulted in decreased domestic demand.

The financial and economic crisis through various channel influenced the decrease in revenues, i.e. income of the population in Serbia:

1. employment decrease and unemployment increase,
2. a change in wage dynamics,
3. freezing of pensions in October 2008,
4. increase of debt servicing obligations, due to the fall of the Dinar exchange rate,
5. decrease of foreign capital inflow, that in part spilled over to the population,
6. decrease in bank loans for citizens, etc.

These factors resulted in a fall of personal consumption, which will be approximated here by trend of the monthly turnover in retail trade, in constant prices:



A downward trend is evident. There has also been a drop in the purchases of apartments, because of the reduced bank crediting of housing construction. The purchases of new automobiles have been halved compared to the previous year.

**The trend of economic activities by sectors** has a differentiated dynamics, as the following Table shows:

Table 2. Gross value added, fixed prices (percent)

Sector	2008-4/ 2007-4	2009-1/ 2008-1	2009-2/ 2008-2
Agriculture, hunting and forestry; fishing	9.0	1.6	3.2
Mining and quarrying	2.7	-7.3	-9.0
Manufacturing	-4.4	-20.9	-20.0
Electricity, gas and water supply	-3.9	-1.0	-1.3
Construction	-3.4	-13.8	-16.1
Wholesale and retail trade, repairs	4.3	-6.3	-8.0
Hotels and restaurants	1.8	-9.2	-11.8
Transport, warehousing and communications	8.4	4.1	7.5
Financial intermediation	8.3	6.1	5.9
Real estate and rental	3.5	1.3	2.7
Other services	2.1	2.3	1.7
Total, gross value added	3.2	-3.2	-2.8

Source: RSO, unpublished document

As shown in the Table, a drop in the activities of certain sectors is observed already in the last quarter of 2008, such as the manufacturing, the power industry and the construction industry. The situation considerably deteriorated in the first quarter of 2009, when the number of sectors with reduced activity increased: they included mining, trade and the catering industry. Especially hit was the manufacturing, whose output was reduced by a fifth. Nevertheless, certain sectors continue to grow even at a time of crisis, such as transport, financial intermediation and other services. The tendencies in the second quarter of 2009 were also similar.

These trends by sectors represent a continuation of the tendencies from the previous years, when economic growth was largely based on an increase in activity in the sector of non-tradable goods, while the sector of tradable goods practically stagnated. Serbia is obviously continuing the process of de-industrialization.

**Evaluation.** Serbia was not prepared for the crisis. The private sector is small, with low savings and modest exports; the public sector is too large and mostly redistributive; salaries and pensions are excessively high, based on the inflow of foreign capital, all of which gives an unfavorable structure of incentives. The result is an economy with low productivity, low savings and low exports (IMF, 2009c, p. 9-10).

Nevertheless, Serbia's economy has managed to stay on its feet. This is the result of both the mildness of the recession in the developed countries and Serbia's low dependence on exports, as well as the support of international institutions to Serbia and certain timely interventions by the National Bank. The main problem was the fiscal system, torn between the need to finance the non-flexible expenditures, on the one hand, and the drop of its own revenues, on the other.

It is hard to assess the trends of Serbia's economic activity and the GDP in the upcoming period, since the uncertainty is large. For 2010 the EBRD is planning a growth by 1 percent, while the IMF and the Serbian Government expect 1.5 percent.

## 2. INITIAL LABOR MARKET CONDITIONS

**The transition** of the Serbian economy, initiated in 2001, inevitably affected labor market conditions and significantly influenced its processes. The new Labor Law was adopted in 2001 and the Employment Law in 2003. The overall reform strategy of the government of that time was characterized by the following elements:

- relatively liberal labor law, in order to increase the labor market flexibility,
- reduction of taxes and contributions on wages, with the aim of increasing attractiveness of new employment and providing incentives to legalization of the widely-spread grey economy,
- active labor market measures, in order to contribute to new employment, and
- relatively generous social programs for those who lost their jobs or agreed to leave the privatized company on a voluntary basis.

The plan was to enable restructuring of enterprises and improve the investment climate, along with short-term reduction of employment, to provide incentives for long-term growth of employment and to assist "losers" from the labor market.<sup>1</sup>

The Labor Law adopted in 2001 provided much greater flexibility in comparison with the 1996 Law in terms of labor force employment and dismissal. However, the flexibility in terms of labor force dismissal was not based on labor contract as an expression of free will of both parties – since even this law stipulated that the employer can fire an employee only for justified reasons – but was based on deregulation of procedures that provided the employers with more room for maneuver in interpreting “justified reasons”. However, in 2005 the new Labor Law was adopted. Changes in this Law were not introduced through conceptual alterations but rather through an extensive regulation of procedures; thus, Serbia adopted a Western European type law, where the basic logic is focused on protecting employees and workplaces with large severance payments in the case of lay-offs. Such a legal framework is not well suited to a transition country and represents a barrier to the much needed fast restructuring of the economy and to economic growth, in general.<sup>2</sup>

However, **labor market developments** have not proceeded according to the envisaged scenario. The labor force transition in Serbia had two main trends: a (mild) reduction of the employment over the years, along with a low employment rate and maintenance of a high unemployment rate.

The activity rate, as a percentage of the labor force in the population aged 15 + in Serbia, is low and lower than in European countries. In the period 2005-2007 the activity rate amounted to somewhat over one half, but in 2008 it increased significantly (to 53.5 percent). Women in Serbia are characterized by a significantly lower activity rate, although this difference in comparison with the male population was reduced from 18.4 percentage points in 2005 to 17.1 in 2008. (See Table 1. in Annex 1)

Such a low activity rate in Serbia indicates a significant failure to use human resources to their full potential. Simply, there are too many of those who are not working i.e. who belong to the

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<sup>1</sup> For details see CLDS, 2005, Chapter 1 and 10.

<sup>2</sup> The same opinion is expressed in OECD, 2008, p. 60

category of dependants. This is in part caused by population aging and a considerable number of pensioners, but there is also a significant number of young people in this category. The category of inactive population aged 15 and over covers also students, but there are far too many inactive citizens aged 25-55 (too old to be students and too young to be retired): as much as 600,600 in 2008.<sup>3</sup> The category of the inactive population also includes the so-called potentially active population. In 2008 there were 120,400 those who wish to work, but do not meet restrictive LFS criteria for entering the category of the unemployed.<sup>4</sup> They mainly fit into the category of the discouraged.

Consistent with the low activity rate, the employment rate is also low. In Serbia only one half of the population aged 15-64 is working and earning. The employment rate of 53.7 percent in 2008 is significantly lower compared to most other countries, especially developed ones (OECD, 2008, p. 29). The employment rate for women is dramatically lower compared to men, although a positive trend can be observed: this disparity was reduced from 20.4 percentage points in 2005 to 17.0 in 2008. (See Table 2. in Annex 1)

#### Methodological note

In the Labour Force Survey 2008 methodological changes were introduced resulting in an enhanced quality of the survey and harmonization with the latest Eurostat recommendations, whereby comparison with surveys of other countries was improved.

Changes were made both in the questionnaire and in the methodological instructions. The main changes included:

1. stricter criteria for the unemployed category resulting in a substantial decrease in their number when compared to 2007, in favor of the inactive,
2. exclusion of the question on wages from a second job, leaving only the question on wages from the main job,
3. two surveys are conducted per year, while previously it was only one, which resulted in an increased reliability of the results,

Due to the above reasons, the comparison between the 2008 survey and the previous years is only partial.

**A basic illustration of employment** in Serbia is presented in the following table:

Table 3. Employment in Serbia, 2005-2008

Year	Number in 000	Growth Rate in %
2005	2733.4	-6.7
2006	2630.7	-3.8
2007	2655.7	1.0
2008	2821.7	6.3

Source: LFS

<sup>3</sup> According to LFS data, 2008

<sup>4</sup> Readiness to start working within two weeks and actively looking for a job.

According to the LFS the total employment in the past few years ranged from 2.6 to 2.8 million, indicating a U-shaped curve. Out of this, a sizeable share is employed in the informal economy – 658 thousand in 2008 or 23.3 percent. The share of women amounts to somewhat over 2/5, and it is slightly growing. In 2008 the number of employed was primarily increased due to the boost of number of self-employed and contributing family workers. In 2007 and 2008 there was a discontinuation in the yearlong trend of employment decrease and there was even a slight increase (Arandarenko, 2009).

This global data contain various tendencies in different employment sectors. On the one hand, employment in the large business sector is decreasing<sup>5</sup> as a consequence of privatization and restructuring of enterprises i.e. releasing privatized companies from previous surplus manpower. The reduction was emphasized by the low level of investments in Serbia during this decade, so the employment could not be raised within this sector. On the other hand, the employment in the MSE sector (self-employed) is growing, but not particularly rapidly, and therefore usually insufficiently to compensate for the reduction of employment in the large business sector.

The share of employed in agricultural and related activities is visibly growing in the last few years, while there is a falling trend of employed in manufacturing activities which is not favorable. In this period there is growth of employment in financial intermediation and real estate and leasing activities, but a decrease in public administration and education. (See Table 5. in Annex 1)

**Unemployment** is high in Serbia, regardless of how it is measured. According to the Labor Force Survey, considered to be the most reliable,<sup>6</sup> the fluctuations in unemployment and unemployment rates were as follows:

Table 4. Unemployment, 2005-2008

Year	Number of unemployed, in 000	Unemployment rate
2005	719.7	20.8
2006	693.0	20.9
2007	585.5	18.1
2008	445.4	13.6

Source: LFS

The number of the unemployed is rapidly decreasing in absolute terms, from 720,000 in 2005 to 445,000 in 2008. This reduction was favorable in 2006 and 2007, since it mainly reflected reality, while in 2008 it was partially the result of stricter criteria for entering the unemployed category and their spillover into the inactive category (“discouraged”). This kind of reduction in the number of unemployed cannot be considered as a particularly positive process, since it is not linked with their regular, productive employment, but with their transfer into another non-employed category.

<sup>5</sup> See RAD statistics, RSO, various years.

<sup>6</sup> Administrative data from the National Employment Service are unreliable due to the fact that the unemployed are not motivated to register or to unregister from the NES records. Therefore the largest changes in the number of unemployed, according to the NES, happen when updating («clearing») records.

When observed by three large regions of Serbia<sup>7</sup>, unemployment rates are quite similar, meaning that the problem is equally spread throughout Serbia i.e. that even wealthier regions (Belgrade, Vojvodina) have not managed to avoid unemployment. (See Table 6. in Annex 1)

The women are at greater risk of being unemployed compared to the male population: their unemployment rate in 2008 was by 3.9 percentage points higher compared to men.

The unemployment is spread through all age groups. The highest unemployment rate characterizes the youth (as much as 42.9 for the population 15-19 years old), then it decreases to 14.7 for the age group 30-34, but still remains a high 8.4 percent in the oldest group (55-59). It is clear that the transition has distorted the regular unemployment distribution i.e. unemployment has affected even older generations who should be fully employed (knowledge, experience, higher rank).

Serbian unemployment has another extremely unfavorable characteristic: it is a long-term phenomenon. As much as 71.1 percent of the unemployed population is unemployed for more than a year, more than one half (54 percent) is unemployed for over two years and as much as 10.6 percent is over 10 years unemployed. Women and men have a similar unemployment duration profile. Long-term unemployment in Serbia is causing an increased risk of permanent exclusion of individuals from employment since their knowledge and skills are gradually becoming out-dated. (See Table 7. in Annex 1)

Among the unemployed population in 2008 there were 42.2 percent of first job seekers, while 57.8 percent used to be employed. Among the latter, the largest number of them lost their jobs due to lay-offs and closing down of enterprises (55.1 percent), due to temporary or seasonal jobs (16.1 percent), etc.

There are numerous reasons for long-term unemployment. The main reason is the lack of new job opportunities, especially in less developed parts of Serbia. The next reason relates to the fact that many of the unemployed lack required education or skills. The third reason is a certain lack of incentives to the unemployed to work and to become employed due to state measures providing medium-term coping mechanisms, such as enhanced severance payments, unemployment benefits and social support to the poor (The World Bank, 2006, p. ii).

**Wages** grew fast during the period 2001-2008, reaching and exceeding each year, except in 2008, 10 percent in real terms. That growth was significantly faster than productivity growth. The last four years are shown in the next table:

Table 5. Average wages, 2005-2008

Year	RSD	Growth rate, constant prices
2005	16216	
2006	19785	9.3
2007	23643	11.6
2008	26135	-2.6

<sup>7</sup> There are no official regions in Serbia but the term “region” is used in this analysis to delineate three large territorial parts of Serbia: Belgrade (officially within Central Serbia), Central Serbia (without Belgrade), and Vojvodina.

Source: LFS

During the past several years this fast growth was enabled by various factors: burden of taxes and contributions on wages was significantly reduced; rapid wage growth in the public sector and the “demonstration effect” in the private sector; inflow of foreign assistance and capital; productivity growth in the private sector, etc. The fall of the average wage in 2008 is the result of the mentioned change in methodology i.e. the exclusion of wages from additional jobs from the calculation. According to another statistical source (RAD, RSO) in 2008 wages increased in real terms as well (by 3.9 percent).

It is interesting to note that almost all sectors with above average wages are mostly located in the state sector, while those with lower wages belong to the private sector. Thus average wages in mining and energy, mostly still public companies, are over 50 percent higher than wages in the manufacturing industry that have mostly been privatized. Wages in agriculture, catering and trade - sectors that have been entirely privatized - are below average; while in the state administration, health and education they are above average – not solely as a result of higher education levels in these sectors. This once more confirms the thesis that the public sector in Serbia is a generator of high wage growth, pushing budgets into deficit. On the other side, the private sector cannot manage to keep up with that growth and shows long term wage lag.

Globally, it is interesting that in the period 2006-2008 wages were growing faster in the primary and secondary than in the tertiary sector.

While in 2008 Central Serbia and Vojvodina have similar level of wages, wages in Belgrade are significantly higher - by approximately one half. During this period there are significant changes in the relationships: average wages in Belgrade show a high growth compared to Serbia's average, wages in Central Serbia keep up with the average, while they lag behind in Vojvodina.

The ratio of average wage of men and women declined from 1.15 (2005) to 1.11 (2008). Men still have a higher average wage but this difference is not very large – 11 to 15 percent. (See Table 10. in Annex 1)

### 3. PRE-CRISIS LIVING CONDITIONS

**Poverty estimates for Serbia based on HBS (Household Budget Survey) data show a significant reduction in poverty between 2006 and late 2008.**<sup>8</sup> For the purposes of this analysis, the decision has been made to use the 2006 poverty line and to update it for the changes in CPI. In 2006, the absolute poverty line was estimated at 6,221 dinars. Adjusted to the 2008 prices, it was estimated at 7,323 dinars per equivalent adult per month in 2008.

Table 6. Poverty estimates for Serbia, 2006-2008(Q1-Q3), percent

Measure of welfare	2006	2007	2008(Q1-Q3)
Absolute poverty line (per equivalent adult, in dinars)	6,221	6,625	7,323
<b>Headcount Index of Poverty</b>	<b>8.8</b>	<b>8.3</b>	<b>6.1</b>
Poverty Gap Index	2.1	1.9	1.2
Poverty Severity Index	0.8	0.7	0.4

Source: Republican Statistical Office (RSO) estimates based on the HBS data.

Measures of welfare presented in the table above show that the *headcount index* of poverty declined from 8.8 percent in 2006 to 6.1 percent in the first three quarters of 2008. This is in line with the general trend of decreasing poverty observed since 2000 and confirmed by different poverty assessments based on the LSMS (Living Standard Measurement Survey) data. Already at the low level of 2.1 percent of the poverty line in 2006, *poverty gap* dropped further to 1.2 percent in 2008. Simultaneously, *poverty severity index* was halved from 0.8 percent to 0.4 percent.

**Urban and non-urban areas.** In 2008, poverty was higher in non-urban<sup>9</sup> than in urban areas of Serbia. In the first three quarters of 2008, poverty incidence among the non-urban population was 7.1 percent compared to 5.4 percent in the urban population. ***Poverty did drop quite significantly in non-urban areas since 2006. The overall poverty decrease actually occurred in these areas making the difference between non-urban and urban poverty significantly smaller than in the two preceding years.***

<sup>8</sup> The annual sample of HBS involves roughly 4,400 households in total, with the monthly data collection on a 1/12 of the sample. Important noting is that the quarterly HBS data provide a reasonable evidence of changes in living standards over the years rather than precise poverty estimates. For more precise poverty estimates see *Living Standards Measurement Study: Serbia 2002-2007*, Republican Statistical Office, Serbia, 2008.

<sup>9</sup> “Non-urban” corresponds to “Other” areas (“Ostalo” in the Serbian language) in the official statistics and includes rural and sub-urban areas.

Table 7. Poverty incidence, by urban and non-urban areas and regions (percent)

	2006	2007	2008 Q1-Q3
<b><i>Urban/Non-urban areas, all population</i></b>			
Urban areas	5.3	6.0	5.4
Non-urban areas	13.3	11.2	7.1
Total	8.8	8.3	6.1
<b><i>Regions, all population</i></b>			
Belgrade	4.3	2.4	2.3
Vojvodina	8.6	11.9	8.4
Central Serbia	10.7	9.0	6.6

Source: RSO estimates based on the HBS data.

**Regions.** Serbia is often described as a country with significant regional disparities (Republika Srbija 2006, Krstic and Sulla 2007). In 2006, regional distribution of poverty was in line with the regional economic disparities where Belgrade, as the most developed one, had significantly smaller incidence of poverty and was followed by Vojvodina, and Central Serbia as the least developed one. ***While Belgrade remained the region with the smallest and decreasing poverty incidence (2.3 percent in 2008), Vojvodina and Central Serbia swapped their positions in 2007 and 2008.*** The differences in regional poverty incidences could be linked to the availability and size of economic opportunities and higher wages in Belgrade than in the other regions. Despite its declining poverty incidence, Vojvodina was still worse off than Central Serbia in 2008 (Table 7).<sup>10</sup>

**Economic activity.** The 2008 HBS data analysis has reinforced the earlier findings (Krstic and Sulla 2007, Republican Statistical Office 2008) that ***poverty is strongly correlated with employment status and education level. Those who are unemployed have higher incidence of poverty*** (Table 1, Annex 2). According to the data on economic activity, the population in households headed by the unemployed person had the highest incidence of poverty (16.5 percent compared to the average poverty incidence of 6.1). They appeared to be exposed more to risk of poverty in 2008 than in the preceding years since their poverty incidence was actually rising in the pre-crisis period (Table 2, Annex 2). With the poverty incidence of 6.2 percent, the population in households with self-employed heads was placed around the national average, followed by the population in households with heads employed in the private sector with below the average incidence of poverty (5 percent). While for the latter two categories the 2006-2008

<sup>10</sup> Important noting here is that starting from 2007 the sample has undergone unintended alterations yielding somewhat non-conclusive results about poverty by region. The sample included a larger number of one-member and two-member households, particularly from Vojvodina, with higher probability of facing poverty. Since the HBS uses the sample with substitution this might have affected the results. Another possible explanation for the poverty increase in Vojvodina could be the faster price increase in this region in 2007.

trend shows a significant decrease in poverty rates, *the living standard has apparently deteriorated for the population in households with the unemployed heads.*<sup>11</sup>

The HBS data also show that the population living in households with heads who were pensioners had a rather low poverty incidence of 5.9 percent in the first three quarters of 2008. On the contrary, population in the households with heads who were recipients of different transfers<sup>12</sup> had a high poverty incidence of 23.2 percent. However, *in the pre-crisis period poverty incidence had dropped significantly for both the population living in households with heads who were pensioners and in the ones headed by transfer recipients.* This suggests that besides favorable macroeconomic conditions government run policies might have had a certain impact on improving living conditions and addressing poverty for this part of the population.

**Education level.** In the first three quarters of 2008, less educated people - those without completed primary school and those with completed primary school only - were more likely to be poor - 10.7 and 8.5 percent respectively. *Poverty incidence among the less educated has declined significantly since 2007. Moreover, poverty reduction in the pre-crisis period did actually occur among the population within the households headed by non-educated heads* (Table 3, Annex 2). Still, the population of households with heads who completed primary school or less had a much higher poverty incidence in 2008 (18.4 percent) than the other groups by education level. Having completed more than primary school significantly reduces the probability of being poor. Furthermore, higher levels of education of household heads bring down the incidence of poverty for the population in these households to the level of 5.4 percent (secondary school), 2.5 percent (two-year post secondary education), and 1.6 percent (university degree).

**Age group. Children (0-14) and older than 60 consistently appear to be more affected by poverty** (Table 1, Annex 2). Children 0-6 face much higher poverty risk than the other age groups. Their incidence of poverty well above the national average appears to be consistent throughout the years. At the level of 6.5 percent, poverty incidence among children 7-14 was close to the national average in the first nine months of 2008. In the preceding years they experienced a much higher poverty risk. The HBS data suggest that both groups might have had experienced significant improvements in their living standards in the period preceding the crisis.

**Gender.** From the level of 8-9 percent in 2006, poverty incidence for both men and women decreased to the level of around 6 percent in the first three quarters of 2008. *The HBS analysis showed that gender had no significant impact on overall poverty incidence. Besides, it did not play a substantive role in the explanation of the poverty profile for Serbia in the pre-crisis period.*

**Finally, the consumption distribution analysis revealed a significant increase in household consumption for the majority of households in Serbia and particularly for the households at the bottom end of distribution** (Graph 1, Annex 2). In real terms, the poorer deciles

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<sup>11</sup> Important noting here is that in the HBS, those are the respondents themselves who declare their labor market status, which does not necessarily correspond to the ILO definitions of employed, unemployed, and inactive. For this reasons, the figures with regard to the unemployed will be interpreted carefully throughout the analysis.

<sup>12</sup> Persons receiving transfers or, the so called, 'persons with receipts' include (but are not limited to) social welfare transfers recipients.

benefited relatively more as the richer deciles did not experience much of the increase in the period 2006-2008 (Q1-Q3).

*In line with our discussion in previous sections and the earlier findings (Krstic and Sulla 2007, Republican Statistical Office 2008) this analysis has reconfirmed that the significant and continuous economic growth, the increase in wages, and efficient redistributive policy did improve the living conditions in Serbia between 2006 and the fall of 2008.*

## 4. IMPACT OF THE CRISIS THROUGH THE LABOR MARKET<sup>13</sup>

### Changes in employment

As we saw, the global financial crisis quickly spilt over into Serbia. The reduction of economic activity and consumption in the world, led to a decrease in exports and in economic activity in Serbia, while the decline in the population's income resulted in decreased demand for domestic and imported goods.

These tendencies in the real sector inevitably resulted in the decrease of labor force demand - a factor directly derived from economic activity. Decrease of demand in a market economy leads either to fall in employment or reduction of wages or decline of work hours or a combination of the three. In this way businesses adapt to crisis and seek to reduce operational costs.

In a country with strong protection of employment, widespread and rigid collective contracts there will probably be no corresponding decline in employment, wages and working hours; however companies will be forced into losses and liquidation with a subsequent adjustment of the labor force.

Changes in the labor market in Serbia will be examined through the changes in employment, unemployment and wages in 2008 and early 2009.<sup>14</sup>

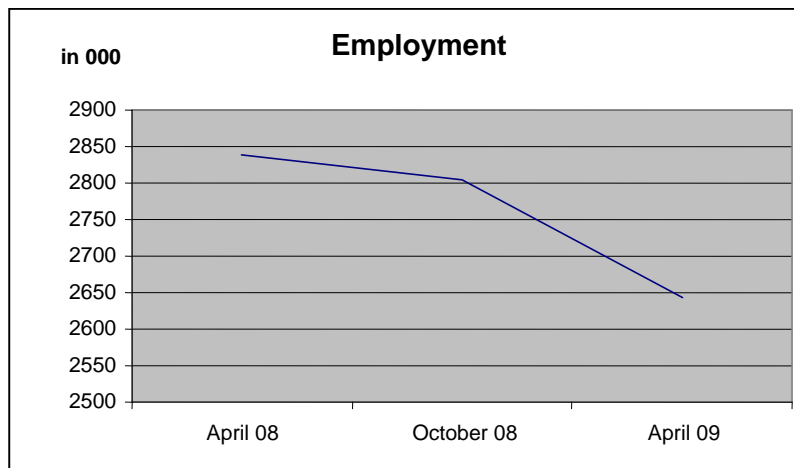
**Total employment.** Total employment in Serbia has decreased in one year i.e. from April 2008 to April 2009 from 2.84 to 2.64 million, i.e. by 6.9 percent.<sup>15</sup> This decrease is shown in the graph:

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<sup>13</sup> The analysis is based on the three semi-annual labor force surveys conducted in April 2008, October 2008 and April 2009. These surveys were conducted on the basis of the same methodology and the same questionnaire. Two surveys conducted in 2008 covered a total of 47,711 persons and the one in April 2009 19,642 persons. Some results were taken from the panel surveys conducted in October 2008 and April 2009 covering the same 8,843 individuals.

<sup>14</sup> We use a wider definition of employment, which comprise all of those who have worked at least one hour in the previous week. We have opted for this definition in order to harmonize the analysis with ILO standards and so that the results can be compared with other countries.

<sup>15</sup> In October 2009 total employment decreased further to 2.59 million.



Source: LFS

Decrease of employment in the period April 2008 - October 2008 is relatively moderate – by 1.3 percent. For the most part, it is the consequence of the decrease of employment in the informal economy. The full impact of the crisis on employment was felt in the period October 2008 - April 2009. Its decrease amounts to a significant 5.8 percent, which is certainly not a consequence of the usual restructuring of “large” enterprises only, but also of the reduction of economic activity in the last quarter of 2008 and the first quarter of 2009.

High total employment reduction of 6.9 percent over these 12 months will certainly affect the economic and social conditions in the country if social mechanisms for alleviating the consequences of the crisis fail to perform.

**Regions, urban vs. non-urban** Although the large regions of Serbia showed a relatively stable share in total employment in the previous years, divergent trends occurred during the observed 12 months: by far the most unfavorable trend of employment was present in Central Serbia with a decrease of 10 percent during the period of one year. In Vojvodina, the decrease was 6.8 percent, while Belgrade recorded an employment increase of 1.2 percent. When the two semesters are viewed separately, there is an evident worsening of the employment situation in the second compared to the first semester.

These data confirm what is immediately obvious: that Belgrade is in the lead, followed by Vojvodina, while Central Serbia is lagging behind. The advantage of Belgrade is that it has a more dynamic business sector and a large service sector that is as a rule less affected by the crisis. Unfortunately, no data is available in Serbia about the GDP or gross added value per region so we are unable to verify this impression. (See Table 14. in Annex 1)

The crisis similarly affected employment in urban and non-urban areas. In the first semester before the crisis hit, employment continued to grow, albeit moderately at 0.7 percent, in the urban areas of Serbia. On the other hand, employment in non-urban areas decreased, primarily due to agriculture. In the second semester employment decreased in urban and non-urban areas of the country equally. (See Table 13. in Annex 1) The crisis hit everyone.

**Sectors.** The employment dynamics in the formal and the informal sector largely differ: although employment decreases in both, in the informal sector it decrease much more rapidly. While employment in the formal sector in the first semester practically stagnates (-0.4 percent),

employment in the informal sector is already starting to decline at a rate of 3.7 percent. Negative processes accelerate in the second semester, and so employment in the formal sector decreases by 4.7 percent, and as much as 9.4 percent in the informal sector. (See Table 12. in Annex 1)

The main loss of employment in the informal sector is in agriculture, followed by construction and trade where informal employment is the highest. The greatest share of losses in the formal sector is in manufacturing (more than one half), agriculture (one fourth) and construction (one eighth).

These trends show that the informal sector continues to be a more flexible part of the labor market as it adapts to the crisis much faster (and more radically i.e. more unfavorably). Employment in the formal sector shows higher inertia, but it also tends to adapt under the pressure of unfavorable circumstances.

Fluctuations of employment in industrial sectors were quite high. In the crisis semester (October 2008 – April 2009) the greatest reduction in employment is in the construction sector (13.1 percent) and catering (10.7 percent), which is natural in times of crises. The volume of construction decreases due to deferred investments in economy and because housing construction declines due to reduced access to loans. Activity is also decreasing in catering due to citizens' lower income and reduced spending on these services. A considerable decrease of employment in these industries is also attributable to the seasonal character of jobs i.e. type of employment, since a large number of workers is engaged on a temporary basis. Therefore, the adjustment of employers to the crisis is more straightforward in these industries than in those that are completely or predominantly in the formal sector.

Employment decrease in agriculture is also high – 9.2 percent, probably due to shrinking job opportunities in the informal market segment. In addition to the crisis, decrease of agricultural employment is caused by aging and concentration of agricultural land, which shifted farmers to other professions or to the inactive part of the population (older farmers),

The manufacturing industry also recorded an employment decrease of a considerable 7.4 percent in the first semester. No doubt, the causes are the decline in sales and the continuing decrease of employment due to restructuring. In times of crisis, employers are trying to reduce operational costs and bring employment to an optimal level. Nevertheless, a reduction of employment in manufacturing is considerably lower than the 20.9 percent decrease in manufacturing production in Serbia in the same semester. The causes of this delay are:

- Protection of jobs, making layoffs expensive for the employers due to payments of substantial severance packages,
- Expectations of some employers that the crisis will be soon over, so they try to retain trained employees and
- Use of paid temporary leave (minimum compensation is 60 percent of the employee's previous wage), instead of layoffs.

Among the industries where employment increased in the period October 2008 and April 2009 is the financial sector, leading with 7.1 percent. Despite the crisis this sector achieved positive results in 2008 and continued expanding with considerable new employment. (See Table 15. in Annex 1)

**Profile of employed.** During the crisis semester the employment reduction was quite uniform across education levels (between 5.4 percent and 7 percent), except in the highest category – college, university, academy, masters, and doctoral studies – where practically no changes occurred. This actually means that the burden of the crisis is borne by the employees with primary and secondary education, while the best educated have no problems to keep their jobs. It is evident that the higher job levels (the most professional and managerial) are last when it comes to layoffs. (See Table 16. in Annex 1)

In the first semester, changes in all age groups are minimal except in the cohort aged 45-59 (women) and 60+ where a more significant decrease occurs as a consequence of retirement of the oldest members of the group. However, in the second semester, in which the full effects of the crisis could be felt, the trend of employment per age is completely different. Namely, a reversal of the process is observed at this point and jobs are lost more by the members of younger generations, the older ones keeping their jobs. The data shows that total employment of the youngest cohort – persons aged up to 29 – decreased by 1/7. The key reason for this is the decrease of employment of men by 1/5. On the other hand, the female members of this age group are much less affected by the crisis. On the whole, there is no doubt that employment of the youth and of the youngest generations suffered most from the crisis. (See Table 17. in Annex 1)

Employment of officials, managers, experts and their associates and the group of service sector workers and salespersons have been changed slightly in the one year period. Clerks and unskilled workers follow with a medium decrease. The greatest reduction of employment is seen in the group of skilled workers and similar professions (-12 percent). This is a result of a significant employment decrease in the manufacturing industry and in agriculture, where the majority of workers with this type of qualifications are employed. Generally speaking, it appears that jobs of workers requiring higher expertise and those working in areas not directly related to production tend to be safer at times of crises. (See Table 18. in Annex 1)

**Gender structure.** Employment of women has decreased somewhat more than employment of men: -7.0 percent as compared to -6.8 percent in the period April 2008 – April 2009. A decrease in employment of women is evident already in the first semester when the employment of men is still on the increase. Trends reverse in the second semester as a result of a considerable decrease of employment in sectors with dominant employment of men (manufacturing, construction) and a significantly lower decrease or even increase of employment in sectors with dominant employment of women (trade, education, health, financial mediation).

Despite this slight difference at the expense of women during the previous year, the positive dynamics compared to men over a longer period of time resulted in an increased share of women in the total employment. It reached 43.3 percent in April 2009, which is considerably higher than 40.2 percent in 2005. It is certainly disappointing that this improvement in gender structure occurred in circumstances of a general decline of total employment, including that of women.

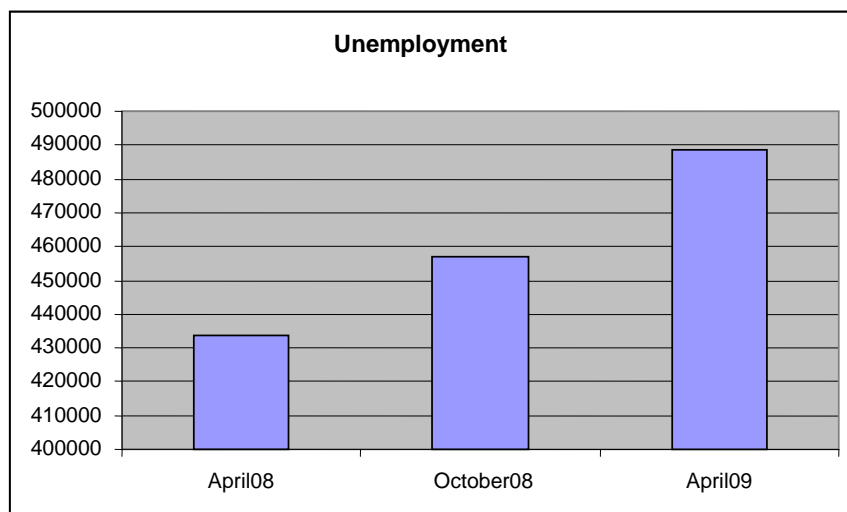
Employment of women has also decreased considerably in the informal as compared to the formal sector. Women have done better in Belgrade and Vojvodina than men, and worse in Central Serbia.

From the gender aspect, no major differences exist between men and women per education level. Women did better than men in professions requiring expertise, and worse in unskilled jobs.

## Changes in Unemployment

Growth of unemployment practically goes hand in hand with economic crises and is usually considered its most unfavorable outcome. It is the result not only of the decline in economic activity and companies' businesses, but also of the tendency to reduce business costs as much as possible, including labor costs, so as to avoid losses and if possible make a profit. In other words, labor force reduction is linked to increasing the company's efficiency.

Unemployment growth in Serbia in the observed period was significant:



According to the Labor Force Survey, in the first semester, when signs of the crisis were just appearing, unemployment grew significantly in the whole of Serbia by 5.5 percent. In the second semester, in April 2009 the number of unemployed persons increased by 6.9 percent relative to October 2008, and unemployment reached 488,600 persons.<sup>16</sup>

The unemployment rate is still relatively low for Serbia, albeit high from the international perspective. It was increased from 13.3 percent in April 2008 to 14.0 percent in October 2008 and 15.6 percent in April 2009.<sup>17</sup> The increase in unemployment rate is the result of the combined effect of employment reduction and unemployment growth.

Unemployment of women grew faster in the first and slower in the second semester. In total, during these 12 months it grew slower than that of men.

**Regions, urban vs. non-urban** The regional picture is quite balanced. Unemployment grew similarly in all three large regions of Serbia. The share of regions in unemployment is very similar to the share in employment and so the unemployment rates are also very similar. It is to be expected that at lower administrative levels (county, municipal) the burden of unemployment differs across Serbia to a greater extent. (See Table 19. in Annex 1)

<sup>16</sup> In October 2009 total unemployment reached 517 thousands.

<sup>17</sup> In October 2009 unemployment rate reached 16.6%.

Increase of unemployment is much more pronounced in urban areas where it amounted to 8.4 percent and 8.1 percent respectively in the two observed semesters, while it is considerably lower in non-urban areas: 0.4 percent and 4.5 percent respectively. (See Table 20. in Annex 1) This difference is certainly a result of the different economic structure of these areas. Urban areas are affected both by continuous restructuring of large systems leading to further lay-offs of accumulated surplus labor and to an increase in unemployment, and also by the impact of the crises on business operations in the formal economy.

On the other hand, in settlements where agriculture and less formal occupations dominate, cessation of employment does not always signify unemployment but often inactivity, since active job search is often impossible.

**Profile of unemployed.** The share of young people (15 to 29) in total unemployment in April 2008 is highest, amounting to 38.6 percent. This grim fact is not surprising since in the situation of limited employment opportunities and great unemployment it is the members of younger generations that find it more difficult to find jobs as they do not usually possess the required professional experience and sometimes also lack adequate qualifications. However, the share of middle-aged generations remained high, as a result of transitional restructuring and the current crisis.

In the observed one-year period (April 2008 – April 2009), where total unemployment growth amounted to 12.6 percent, the increase in unemployed was slowest in the youngest generation (7.4 percent), followed by the young (9.5 percent), middle aged (23.2 percent), whilst it was fastest in the eldest generation of 60 + (35.3 percent), although the least in absolute numbers. (See Table 21. in Annex 1) This process can be considered as unexpected since it is completely opposite not only to the tendencies so far, but also to the usual belief that the young and youngest generations are the first victims of crisis.<sup>18</sup>

Persons with secondary education are dominant among the unemployed in Serbia – their share even exceeds 2/3. They are the ones most affected by unemployment since only for this category is the share in unemployment higher than the share in employment (67.9 percent as compared to 55.0 percent in April 2008) and is continuing to grow during the crisis. Important reasons for the high share of unemployed with secondary education are on the one hand the excessive number of secondary school graduates from previous decades and on the other, their outdated knowledge that does not correspond to market needs – resulting in their employment in industries that are shrinking or becoming obsolete (mechanical, chemical and similar industries).

During the crisis semester the least affected were the most educated and the least educated, whose unemployment practically stagnated, while the most hit were those with primary and secondary education. (See Table 22. in the Annex 1)

## **Wages**

**Average wage.** After a strong growth of real wages during the current decade, the trend was interrupted over the crisis year and wages practically stagnated in real terms. While, according to

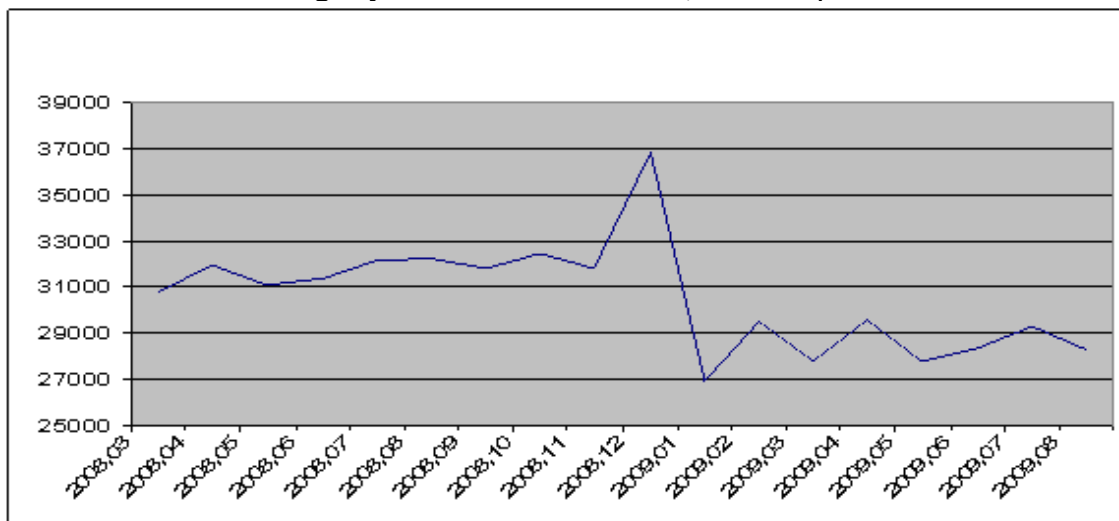
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<sup>18</sup> Still, the slow growth of youth unemployment is not a consequence of modest job loss, but also of the existing high unemployment, so a significant absolute increase of youth unemployment does not lead to a high percentage of unemployment growth.

the LFS, nominal wages grew, these sums measured by constant prices recorded a slight fall in both semesters: by 0.1 percent in the first semester and by 1.2 percent in the second. The decrease in real wages during this 12 month period was not the result of a decrease in nominal wages but of their inflationary depreciation. So we see that there is a (partial) adjustment to the financial crisis in Serbia in the formal sector through employment reduction and through a minor fall of wages.

Similar trends are observed in wage statistics in the formal sector (survey RAD).

Wage dynamics in formal sector, constant prices



Source: RAD

According to data from RAD, real wages in the formal sector stagnated during most of 2008. After an abrupt increase in December 2008, an even larger drop in January 2009 (which is a regular seasonal phenomenon) and methodological change,<sup>19</sup> real wages also stagnated during 2009, at the same level as in 2008 taking into account the methodological changes.

**Regions, urban vs. non-urban** The ratio between average wages in urban and non-urban (rural and mixed) communities is certainly in favor of employees in urban areas: their average wage is about 30 percent higher, as a result of employment in modern industries with full time employment. In rural areas, there are many people employed in small agriculture, as contributing family members and in similar part time jobs. Nevertheless, this difference has not changed over the past 12 months, for both areas were equally affected by the crisis. (See Table 25. in Annex 1)

Among regions, Belgrade has the highest wages but interestingly, differences decrease during the crisis. The key reason for that is the wage lag in industries over-represented in Belgrade such as health, state administration and catering. On the other hand, unexpectedly, average wages in Central Serbia caught up with the considerably more developed Vojvodina. The relative improvement of wages in the agricultural sector compared to other sectors contributed as well. (See Table 26. in Annex 1)

<sup>19</sup> From January 2009 the Republic Statistics Office changed the method of wage calculation - in addition to employees in legal entities it also includes wages of those employed by natural persons. These wages are lower, and consequently, average wages at the level of Serbia are about 12% lower relative to the previous period and this is the reason for wage decrease in the first half of 2009.

**Sectors.** Let us take a look at the ratio of average salaries in the formal and informal sectors:

Table 8. Wage indices in formal and informal sectors

	April08	October08	April09
Serbia	100	100	100
Informal sector	57.6	55.3	51.4
Formal sector	102.6	103.9	103.1

Source: LFS

Wages in the formal sector are twice as high as those in the informal sector, which is certainly typical and is to be expected because of economic advantages of the formal sector: the fact that they have a technological advantage (or higher capital per employee) and require more complex jobs needing higher education levels i.e. human capital, all of which is reflected in higher wages.

In the observed period, wages in the informal sector record quite a rapid downward trend compared to the formal sector. And again, it is evident that the informal sector bears a heavier burden of the crisis i.e. that it is pro-cyclic. A similar conclusion was reached for employment, as presented in the first part of this chapter.

The mentioned pro-cyclic quality inevitably has negative effects on the social status of the poor. Persons working in the non-agricultural part of the informal sector tend to be vulnerable also in “good” times as they are outside the „normal“ part of economy and can thus earn for just barely satisfying basic needs and a minimum living standard, without social or pension insurance. At times of crises, when these jobs are exceptionally threatened and wages decline, the social status of the vulnerable categories additionally worsens.

In the semester October 2008 – April 2009, still average wages in the public sector decreased more than in the business sector. Moreover, the least real drop was observed in the industrial sector (0.4 percent) and agriculture (1.5 percent). It seems that IMF’s efforts to restrain wages in the public sector rendered some results.

**Profiles.** Looking across occupations, most wages fluctuate in the crisis semester in the narrow range surrounding average wage dynamics for the whole of Serbia. (See Table 27. in Annex 1) The only increase of real wages, although minimal, is recorded in agriculture; while a somewhat more pronounced fall is observed with craftsmen and salesmen.

Growth of average wages with the age is evident in Serbia. (See Table 28. in Annex 1) Although as can be expected young people have the lowest wages, a positive trend is that their wage lag somewhat declined during the crisis.

Men continue to have somewhat higher average wages, but the ratio of wages changes in favor of women: from 1.11 percent, through 1.08 percent to 1.07 percent. Evidently, the trends in previous years continue. Men earn higher wages in both formal and informal sectors with the difference being larger in the informal sector. There is no doubt that the mechanisms of wage alignment (working hours, qualifications, legal regulations) function better in the formal than in the informal sector.

## Sensitivity of Work Status to Crisis

This section shall look at the directions of change in the work status during the crisis i.e. between October 2008 and April 2009. We will use the panel of labor force surveys from October 2008 and April 2009 as our analytical tool.

The relationship between three distinct working status categories (employed, unemployed and inactive) additionally worsened during the period October 2008-April 2009. The employment share of the total population dropped to 41.6 percent, while the share of the unemployed and inactive increased to 7.7 percent and 50.7 percent respectively. (See Table 29. in Annex 1)

In absolute numbers, these changes are presented in the table below:

Table 9. Changes of labor status, Oct 08 - Apr 09

<b>Direction of transition</b>	<b>Change</b>	<b>Balance</b>	<b>change, % of total number</b>
Employed into unemployed	74918		2.7
Unemployed into employed	21851	53067	4.8
Employed into inactive	138921		5.0
Inactive into employed	54150	84771	1.8
Unemployed into inactive	29143		6.4
Inactive into unemployed	28017	1126	0.9

Source: LFS panel data

The main characteristics of the process of transitions in and out of employment, unemployment, and inactivity are as follows:

- Changes are not one-way but rather two-way i.e. from the employed to the unemployed and *vice versa*; therefore, we have presented all the directions of change and their balance,
- The greatest employment decrease was not due to transition into unemployment (74,9 thousand) but rather into inactivity (138.9 thousand); only a small part of this transition into inactivity can be attributed to retirement from the formal sector,
- There is also a transition of the unemployed towards the inactive (usually able-bodied persons discouraged by accumulated failures to find a job), but also of the inactive towards the unemployed where the aggravation of family circumstances probably stimulates a portion of the inactive to search for jobs.

The change of work status per population group is presented in Table 31 in the Annex 1. A thorough analysis shows that the relative frequency of labor market status change is the same in urban and non-urban areas and that it is the greatest in Belgrade. This may be explained by higher activity in Belgrade, as the capital and center of modern economy. Vojvodina is on the average, while Central Serbia recorded a below average frequency of work status change.

With respect to educational qualifications, the highest relative frequency of change and thus sensitivity of work status to the crisis is shown by persons with secondary and primary school

education and with incomplete primary education. The others (with no education, with college and university education) have a below-average vulnerability to crisis.

With respect to age, the relatively most frequent change of work status is observed among the youngest generation (aged 15-30). The following age groups (31-40 and 41-50) show a below average sensitivity, while the sensitivity of the oldest cohort (50+) is above average, partly due to retirement.

With respect to the directions of change, the situation was the following:

- *The employed into the unemployed*: usually from modern, formal sectors; urban areas, particularly Belgrade; as many as 86.0 percent of these transition “losers” have a secondary school education. Sensitivity level clearly drops with age;
- *The employed into the inactive*: these are most often members of two categories: (1) persons deprived of all possibilities for employment due to the crisis, usually in underdeveloped regions and (2) persons who are retiring; non-urban areas dominate, and among the regions Central Serbia leads. By education level, the most affected are persons with primary and incomplete primary school; and by age, the oldest who are retiring are the most vulnerable;
- *The unemployed into the employed*: these are the “winners” at times of crisis, but they are relatively few; urban areas fared far better than the others, and particularly so Vojvodina of all the regions; from the aspect of education, the persons with secondary education fared markedly better, and with the age cohort, the youngest and age group 31-40;
- *The unemployed into inactive*: this is mainly the group who have given up on finding a job and have resigned themselves to their unfavorable situation; here also, the urban population fared evidently worse; Belgrade among the regions; there is an above average number of persons with secondary school and persons without any education; the youngest and the oldest cohorts fared better than average among the age groups;
- *The inactive into the employed*: this is a second group of “winners” in the crisis, although small; Belgrade fared better than average; urban and non-urban regions are equal, as are the groups by education; the youngest and the oldest cohorts fared better than average;
- *The inactive into the unemployed*: they have been provoked to look for jobs, probably due to a deterioration of the family situation; there is an above average share of urban areas, Vojvodina, persons with primary school, the youngest and the oldest.

Women have a somewhat higher relative frequency of employment status change than men. The key difference relative to men is that women, when they lose a job, more frequently transit into the inactive group than into the unemployed. They also leave inactivity more often and transit to employment or unemployment. We may conclude that women living on margins have a traditional attitude to work: they either work or retreat from the labor market completely.

### **Sensitivity of Wages to Crisis**

This section shall examine wage sensitivity of certain categories of the employed to the financial crisis. This analysis is divided into two parts. The first one provides a global picture of the change of wage status of certain groups of the employed (quintiles), while the second part provides a detailed analysis of the “winners: and “losers” during the period of crisis (October 2008 – April 2009). Once again, panels from two LFSs will be used.

The financial crisis changed the wage status of certain groups of the employed to a lesser or higher degree. Those whose position is changed to a higher degree will be considered as more sensitive to the crisis than others. Sensitivity shall be measured by mobility of certain groups among the quintiles per wages<sup>20</sup> between two labor force surveys. In other words, if members of a group of employed (for instance, persons with secondary education or employees in the informal sector) change the quintile per wages to a higher-than-average degree, we shall conclude that they are more sensitive to the crisis than the persons who are less mobile. The notion of sensitivity here does not *a priori* denote the direction of changes, since it can denote either improvement or deterioration.

Let us first take a look at the global picture:

Table 10. Change of quintiles per wages, Oct 08- Apr 09

Apr 09 \ Oct 08	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5
Quintile 1	<b>86.9</b>	10.0	2.9	0.0	0.2
Quintile 2	5.3	<b>79.7</b>	14.1	1.0	0.0
Quintile 3	4.6	6.0	<b>76.6</b>	11.3	1.5
Quintile 4	2.1	2.9	5.4	<b>81.7</b>	7.9
Quintile 5	1.1	1.5	1.0	6.0	<b>90.4</b>

Source: LFS panel data

The table presents changes of the composition of quintiles in the period October 2008 – April 2009 in percentage points. The rows denote the April 2009 distribution of the employed from the corresponding October 2008 quintile, while the columns show the October 2008 quintiles from which the employed arrived into the corresponding April 2009 quintile. The main diagonal denotes those who remained in the same quintile in both periods.

Evidently, there is a considerable vertical mobility of wages even in such a short period of time as six months: the percentage of persons who change quintile varies from one tenth to one fourth, depending on the quintile. It is the lowest in the group with highest wages meaning that they change their (favorable) position the least.

Interestingly, a number of “winners” (those who moved into the higher quintile) is considerably higher than the number of “losers” (those who moved into a lower quintile). They are by 36.3 percent more numerous. This difference is a result of the difference in depth (intensity) of change of the quintile: on average, the gain of one winner is lower than the loss of one loser. In other words, the fall of a loser on the quintile scale is, on average, higher than the rise of a winner. This is presented in the table as follows: the figures in the lower left corner of the table (where the plunge is deeper) are higher than in the upper right corner (where the rise is higher).

<sup>20</sup> Quintiles are groups of 20% employed individuals categorized according to the amount of wages: so, in the first quintile there are 20% employees with the lowest wages and in the fifth quintile, the 20% employees with the highest wages.

Let us take a closer look (See Table 30. in Annex 1). The employees in mining and quarrying, where almost one third of them changed quintile in April 2009 relative to October 2008, are the most sensitive to crisis from the aspect of wages. A similar trend is observed with the military where evidently a considerable number of persons received a raise in the salary at the same time. An above average sensitivity according to sector is observed among employees in manufacturing, power, gas and water supply production, financial intermediation and public administration.

Among the occupations, white-collar workers show high sensitivity, followed by craftsmen and workers in unskilled jobs. With respect to the level of education, the highest sensitivity is observed among persons with college and secondary school education who also have the highest number of “sensitive” occupations (clerks, technicians and expert associates), while persons with incomplete primary school education or with no education are completely “insensitive” and stuck in the lowest quintile.

From the aspect of sensitivity all the three regions are around the average. Sensitivity decreases with age: the youngest are the most sensitive, the middle-aged are somewhat above average, and the oldest generation is significantly below average. Employees in urban areas are considerably more sensitive than employees in non-urban areas.

Sensitivity of women’s wages is somewhat lower than the total and is 10.2 percent relative to 11.4 percent. It is much higher in the group of legislators, officials and managers as well as for expert associates and technicians, persons with university education in the sector of transportation and communications, while it is considerably lower for women in non-urban areas, clerks, craftswomen, women with primary education, in agriculture and in the sector of utilities and other services.

We have also reviewed how different categories of employees fared from the aspect of “winners” (climbing on the list of quintiles) or “losers” (descending on the list of quintiles).

The “losers” are defined as groups of employees very much affected by the crisis. These include employees in financial intermediation, real estate and construction. These also include craftsmen, persons with primary school and, somewhat unexpectedly, employees in electricity, gas and water supply.

The group of mostly or fully employed in the public sector is evidently at the very top of the “win” scale: legislators, officials and managers, civil servants and employees in social insurance and the military; only slightly lagging behind them are employees in the education sector. Despite the purported fiscal restrictions and nominal policy of wage limitation in the public sector, this group continues to fare the best. Two small groups are also at the very top – skilled workers in agriculture and fishing and persons with incomplete primary school.

Somewhat unexpectedly, among the regions, Central Serbia is above average from the aspect of gain, although this is in line with the earlier mentioned wage trends. Belgrade and Vojvodina in particular are below 50 percent. The difference is practically non-existent regarding urban and non-urban areas.

As already mentioned, explicit “winners” among the professions are legislators, officials and managers, skilled workers in agriculture and fishing and the military. With respect to the level of education, the notable “winners” are persons with incomplete primary school and university and other corresponding higher degrees. Persons with primary school fared worse. Among different generations of employees, the young employees (aged 15-29) fared the best and persons over 50 fared the worse.

With respect to sectors, the highest gain is recorded in state administration, social insurance, trade, education and agriculture. The losers tend to be employed in construction, real estate, financial intermediation and transportation.

Generally speaking, these trends are in line with the ones observed in the section on change of wages during the crisis.

### **Two General Remarks**

The previous analysis points to two main conclusions.

First, the process on the labor market in times of crisis is much more complex than expected. Thus, employment decrease in a given sector, on a certain territory or a particular profile does not automatically result in increased unemployment and/or decrease in wages, as could be expected according to simple schemes. So, for instance, the above average drop in employment of the youngest age category is not linked with an above average raise of the unemployment, but rather the middle aged generation shows the highest unemployment increase. Or, Central Serbia had the largest employment decrease, but the growth of unemployment by region was uniform. Moreover, in spite of a drop in employment, Central Serbia achieved wage growth compared to the other regions in Serbia. Or, employment decrease is the same in urban and “other” areas, while unemployment growth is significantly higher in urban areas.

Such processes are a result of leakage from the labor force market and buffers, i.e. the complex network of flows between employment, unemployment and non-activity. The motives and causes of these fluctuations are diverse. Thus, the transition from employment into non-activity can be caused by the inability to actively search for a job due to the lack of employment. Or, reasons can also be attributed to population aging, concentration of agricultural land, institutional weaknesses, etc.

The second is the confirmation of the concept of vulnerable employment or high potential risks threatening the labor active population in the informal sector (agriculture, the self-employed and the temporarily employed). During the crisis the informal sector became the main victim from the aspect of wages and employment, while the formal sector managed to retain achieved levels much better. Furthermore, Serbia as some other countries in the neighborhood, can be said to have a dual labor market. One segment includes jobs in the public sector and in the modern part of the private sector where employees enjoy legal protection and social insurance and the crisis does not affect them much. The second segment includes the others (individual agriculture, self-employed, gray economy, etc); no one protects them and so they are hit the hardest by the crisis (with partly the exception of individual agriculture); this segment bears most of the burden of adjusting to the crisis.

## Policy Issues

The reduction of wages during the crisis was moderate. This means that the burden of the economy's adjustment to the crisis was borne both by employment and wages, but more so by employment. If the labor market was more flexible, in theory, wages would bear a higher burden. Most likely, this would result in a more equal distribution of the burden.

State policy in the area of labor market has been very modest. The first measure in December 2008 was not successful. Namely, the Minister of Labor and Social Policy, on behalf of the government, signed amendments to the general collective agreement with quite an insignificant employers' organization and then widened the enforcement of the agreement to all the companies in Serbia. The agreement anticipated a 20 percent increase of salaries of all employees! Of course, this change would have been commendable had it been possible, but imposing a radical increase of operational costs in an economy entering into a crisis made no sense. This act was soon revoked.

The second change referred to an amendment of the 2009 Labor Law provision on paid leave. According to the previous provision in the Law an employer can send an employee on paid leave for a period of 45 days with a minimum 60 percent payment. The introduced changes provided for an extension of the 45 days to an indefinite period of time. The State thus reacted to the fact that the 45 day limit had already elapsed in many companies, and there was danger of many employees being laid off due to a decrease in business activities. This amendment gave employers the possibility to continue retaining labor force at lower costs until times get better. Nevertheless, it seems that an opportunity was missed to introduce more flexibility into labor relations through legislative changes, which will inevitably become an option should the crisis continue.

In fact, the key measure that could help maintain employment levels or at least cushion their fall is found in the area of fiscal policy. Namely, Serbia's budget started producing ever greater deficits, which the International Monetary Fund also accepted. In this Keynesian manner efforts are made to preserve demand in the national economy, shaken by the drop in demand for exports and the demand of the population. In truth, the deficit increase was not a consequence of a planned Keynesian policy but rather a result of a decrease in fiscal revenues due to a drop in income and expenditures of the population.

Active labor market programs are modest, primarily due to fiscal reasons. Recently, three new programs amounting to 3 billion Dinars (35 million Euro) were introduced. The first one is "The First Chance" that should enable employment of 10 thousand unemployed without experience, where the National Employment Service temporarily finances the wages of the newly employed. The program was successful and employment was completed in August 2009. The second program involved small scale public works at local level. Funds are awarded for community projects, local governments and NGOs can apply, while members of vulnerable groups are occasionally engaged. "Severance to Job" is the third employment program and in 2009 also amounted to 3 billion Dinars (35 million Euros).

Perhaps the fact that active policy measures are modest is not such a bad thing, since the majority of these measures often produce unsatisfactory results. However, the crisis is always a good moment to examine all options including the redesigning of active employment measures, aiming them at population groups and regions affected by the crisis.

Regarding fiscal policy there were no changes aimed at stimulating or maintaining employment. Previous measures for stimulating employment enacted in 2005 are still in force and have not resulted in visible effects.

The government has not even attempted to reduce operational costs in the economy through (temporary) budget subsidies to wages, either through direct subsidies or through tax alleviations. Simply, public spending in Serbia is too high, so there were no available financial resources for these kinds of policies.

Both the government and the employers place their hopes in a quick ending of the crisis - the government, because of the inability to do anything really useful, and the employers, because they are limited in dismissing workers due to existing legislation. In addition, they have legitimate business interests to keep a skilled labor for times after the crisis.

## 5. THE IMPACT OF THE CRISIS ON POVERTY AND WAGES

**If the period up to the fourth quarter of 2008 is characterized as the period of poverty reduction, what followed after can certainly be described as the time of deteriorating living standards and increasing poverty in Serbia. However, poverty incidence in the crisis period was still lower than it was in 2006 and 2007.**

When comparing poverty estimates for the pre-crisis period with the data from the last quarter of 2008 and the first two quarters of 2009, one can ascertain the impact of recent economic crisis on living conditions in Serbia. The findings are rather straightforward and will be presented here.

As mentioned earlier, the absolute poverty line was estimated at 7,323 dinars per equivalent adult for 2008. The analysis has confirmed that after the period of significant poverty reduction, the headcount index of poverty increased to the level of 7.4 percent in the first half of 2009. While the poverty severity index remained the same, the poverty gap index of 1.1 percent in the third quarter of 2008 has increased to 1.6 percent in the first half of 2009.

Table 11. Poverty estimates for Serbia, 2008(Q3)-2009(Q1-Q2) (percent)

Measure of welfare	2008 (Q3)	2008 (Q4)	2009(Q1-Q2)
Absolute poverty line (per equivalent adult, in dinars)	7,323	7,401	7,963
<b>Headcount Index of Poverty</b>	<b>4.7</b>	<b>5.4</b>	<b>7.4</b>
Poverty Gap Index	1.1	1.0	1.6
Poverty Severity Index	0.5	0.3	0.5

Source: RSO estimates based on the HBS data.

**Urban and non-urban areas.** In the first half of 2009, non-urban areas had poverty incidence (10.3 percent) that was two times higher than poverty incidence in urban areas (5.2 percent). Poverty incidence in non-urban areas increased from 7.1 percent in the first three quarters of 2008 to those 10.3 percent in the first six months of 2009, while in urban areas it remained rather stable. *Non-urban areas have experienced a higher poverty risk during the crisis period and the overall increase in poverty actually occurred in these areas.* Simultaneously, the already presented labor market analysis has confirmed that those were non-urban areas that experienced a significant decline in employment at the very beginning of the crisis in Serbia.

Table 12. Poverty incidence, by region and urban/non-urban divide, all population, 2006-2009(Q1-Q2) (percent)

	2006	2007	2008 Q1-Q3	2008 Q3	2008 Q4	2009 Q1-Q2
<b><i>Urban/Non-urban areas</i></b>						
Urban areas	5.3	6.0	5.4	3.8	3.4	5.2
Non-urban areas	13.3	11.2	7.1	5.9	8.3	10.3
Total	8.8	8.3	6.1	4.7	5.4	7.4
<b><i>Regions</i></b>						
Belgrade	4.3	2.4	2.3	1.3	4.0	5.0
Vojvodina	8.6	11.9	8.4	3.1	1.5	4.1
Central Serbia	10.7	9.0	6.6	7.0	8.0	10.2
Total	8.8	8.3	6.1	4.7	5.4	7.4

Source: RSO estimates based on the HBS data.

**Regions.** At the level of above 10 percent, poverty incidence in Central Serbia was double the incidence in Belgrade and Vojvodina in the first half of 2009. *Compared to the pre-crisis period, poverty incidence increased quite rapidly in Central Serbia and Belgrade reaching the 2006 level.* During the same period, the decline of employment and the raise of unemployment was significantly higher in Central Serbia. Poverty had also increased in Vojvodina since the third quarter of 2008, but it was still two times lower than in the pre-crisis period, with the earlier mentioned caveat about the validity of the data.

**Age and education.** *The rising trend in poverty has particularly affected population younger than 15 and non-educated* (Table 1, Annex 2). If we now take a look at poverty by education level of household heads (Table 1, Annex 2) it shows us that the populations living in households with heads who did not complete primary school or who completed primary school only have much higher poverty incidence (30.9 percent in 2009). *If compared to the other data, it would be legitimate to conclude that the overall increase of poverty in the crisis period has occurred within these population groups.*

**Gender.** For the population as a whole, gender did not have a significant impact on poverty incidence during the crisis (Table 1, Annex 2). However, when presented by gender of the household head, poverty data signaled rising gender disparities in the first half of 2009 (Table 7, Annex 2). *Poverty incidence has increased in both male and female headed households, but it was actually the population of households with male heads that experienced a higher poverty risk* (7.8 percent compared to 6.1 percent for the population of households headed by women). Furthermore, those in households headed by male heads with very low education (primary school or less) faced high and increasing poverty risk during the crisis period. For these reasons, it would be important to ensure a proper monitoring of future trends.

**Vulnerable groups.** Since disaggregating the data to the level of ethnic groups such as the Roma population or internally displaced persons was not possible in the HBS analysis, the analysis in this report was complemented with the findings from focus group discussions with the

representatives of vulnerable groups (Ipsos Strategic Marketing 2009). We discuss the main findings in this report.

The focus group discussions included the representatives of the Roma population, internally displaced persons, single mothers, and small non-urban households. The general finding suggests that while it is very difficult for them to agree on the time when the crisis started, it is clear that the groups mentioned above experienced serious hardships in meeting their basic needs since the fall of 2008. Based on the respondents' perceptions, the main negative changes included the declining availability of jobs in informal economy (on which they heavily rely), loss of formal employment or loss of employment of a family member, reduced chances to find a new job, decreased wages, and the increased workload. Very often these reasons were spiced up with additional complaints about the price increases that affected them the most, particularly the increased cost of health care that had been born by the citizens themselves (e.g. co-payment and dental expenses). This was all followed by the overall increase of uncertainty and the lack of safety.

***Finally, the above presented poverty estimates signal considerable decline in living conditions in Serbia. The timing is in line with the earlier discussed deterioration of macroeconomic and labor market indicators. The crisis period has been marked with significant drop in economic activity, suspended increase of wages, decreasing employment, and increasing unemployment. This has negatively affected the population in Serbia and particularly the households at the bottom end of consumption distribution.***

The subsequent analysis aims at gaining insights in the impact of the crisis on wages and consumption based on the HBS findings.

**Wages.** According to the HBS data, there was an evident impact of the crisis on wages.<sup>21</sup> In the table below, we present the wages by quintile of consumption per equivalent adult for the first nine months of 2008, the last quarter of 2008, and the first half of 2009. ***It is obvious that despite its increasing trend in the pre-crisis period, the wage growth seems to be discontinued since the last quarter of 2008.***

During the crisis, or, more precisely, since the end of 2008, there was no observed wage growth except for the small increase for the second and the third consumption quintile. For the “poorest” quintile there was a slight nominal decline in reported wages. The same was the case with the “richer” ones. It was only the population in the middle of the consumption distribution that experienced gains in the observed period as their wages increased between 2.4 and 4.5 percent. When compared to the levels of wages in the pre-crisis period (2008 Q1-Q3), the increase was present in all quintiles.

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<sup>21</sup> In the HBS, the definition of wages includes “regular and irregular receipts from employment (income, receipts based on quartal or semi-annual reports, work related allowances etc.)” The HBS data are used here to add to the analysis on the impact of the crisis on welfare and poverty. The findings from LFS remain primary in the discussion of labor market outcomes.

Table 13. Growth rates in wages by quintiles of consumption per equivalent unit

Quintile	2008 Q1-Q3	2008 Q4	2009 Q1-Q2	Growth rate index 2008Q4-2009(Q1-Q2)
Low 20%	19524	22140	22042	99.6
2	21684	24232	24810	102.4
3	24602	25019	26139	104.5
4	25212	28829	28808	99.9
High 20%	32995	38048	35916	94.4

Source: RSO based on the HBS data.

Under the circumstances of non-increasing wages and worsening living conditions one might raise the issue of possible transition of the population at the lower end of distribution to the informal market. However, as the earlier discussion has shown, it was actually the informal sector that marked the most significant decline of employment and earnings. Therefore, the employment opportunities in the informal market shrank and made it even harder for the poorest to cope with the crisis. This has also been confirmed in the analysis on the impact of the financial crisis on the vulnerable population in Serbia (CLDS, 2009).

**Consumption distribution.** In line with the presented data on wages, the level of consumption has declined considerably (by 4.5 percent) in the short period between the last quarter of 2008 and the average of the first six months of 2009 (HBS 2008, 2009). The discussion on the deterioration in living standards focuses on the most vulnerable groups. The analysis proceeds with the description and changes of the profile of the group in the bottom 10 percent and the bottom 20 percent of the distribution. The data capture the change in the distribution from the first three quarters of 2008 to the first half of 2009 (Table 8, Annex 2).

If we take a look at the data by education level, we notice that a majority of the population in the bottom 10 percent completed only primary or secondary school (almost 80 percent combined). In the bottom 20 percent, the secondary school diploma holders were relatively more represented. The share of different groups was relatively stable across the observed quarters except for the population without completed primary school. Their representation in the first decile marked a steady increase from 16.9 percent in the first nine months of 2008 to 25.3 percent in the first half of 2009.

The percentage of non-urban population in the bottom 10 percent and the bottom 20 percent was higher than the share of urban population and it increased between the last quarter of 2008 and the first two quarters of 2009 - from 60.5 to 63 percent and from 53.9 percent to 58.7 percent respectively. More importantly, it is clear that the share of the non-urban population steadily increased between the pre-crisis (2008 Q1-Q3) and the crisis period (2008 Q4 - 2009 Q1-Q2).

Two thirds of the population at the bottom end of distribution originated from Central Serbia in the first half of 2009. This share was notably above its pre-crisis level of 58 percent. The similar increasing trend was evidenced in the population from Belgrade, though at the much lower representation – the share of 9.1 percent in the bottom decile increased to 15.4 percent in the first half of 2009.

The share of the unemployed remained the same in the observed period. Men and women were almost equally represented in the bottom 20 percent and their distribution also remained stable over time.

*Based on the presented description of the groups in the bottom 10 and the bottom 20 percent, it is clear that for the certain categories of the Serbian population there was an obvious increase in their representation in the lowest deciles of consumption distribution between the pre-crisis (2008Q1-Q3) and the crisis period (2009Q1-Q2). Those were, in first instance, non-educated and the population residing in non-urban areas, as well as the population of Central Serbia and Belgrade.*

To conclude the discussion on consumption, we proceed with an additional analysis of the data from the 2009 Q2 consumption module<sup>22</sup>. Based on the figures for the number and share of the population by consumption decile, it is possible to analyze different groups according to their labor market status.

Table 14. Number and share of the population by consumption deciles for employed, unemployed, and inactive population, 2009(Q2)

Consumption deciles	Population	Employed		Unemployed		Inactive	
		Number	%	Number	%	Number	%
1	753480	237830	8.7	60648	12.0	340296	10.4
2	752802	264491	9.7	59969	11.9	313148	9.6
3	752896	237441	8.7	67165	13.3	331384	10.2
4	752211	247981	9.1	56820	11.2	338630	10.4
5	755215	244983	9.0	50526	10.0	347339	10.7
6	752108	260468	9.6	47036	9.3	348386	10.7
7	751727	277071	10.2	42706	8.4	329621	10.1
8	753464	298859	11.0	34678	6.9	326819	10.0
9	751692	324267	11.9	32073	6.3	284757	8.7
10	752668	328403	12.1	53829	10.6	299829	9.2
<b>Total</b>	<b>7528262</b>	<b>2721795</b>	<b>100</b>	<b>505451</b>	<b>100</b>	<b>3260208</b>	<b>100</b>

Source: RSO estimates based on the consumption module data

The results reveal a rather uniform distribution across deciles for the presented groups, suggesting a certain level of solidarity within the population. For the group of unemployed, a somewhat larger number of people fall into the bottom 10 percent and the bottom 20 percent (12 and 11.9 percent respectively). Conversely, for the group of employed individuals, the percentage of population is highest in the richest decile. In the inactive population, the distribution of population is very equal across deciles. To gain additional insights in the distributional impact of the crisis it would be important to continue analyzing the data from the consumption module in combination with the data on transitions in and out of employment, unemployment, and inactivity captured by different survey rounds. The combined analysis of

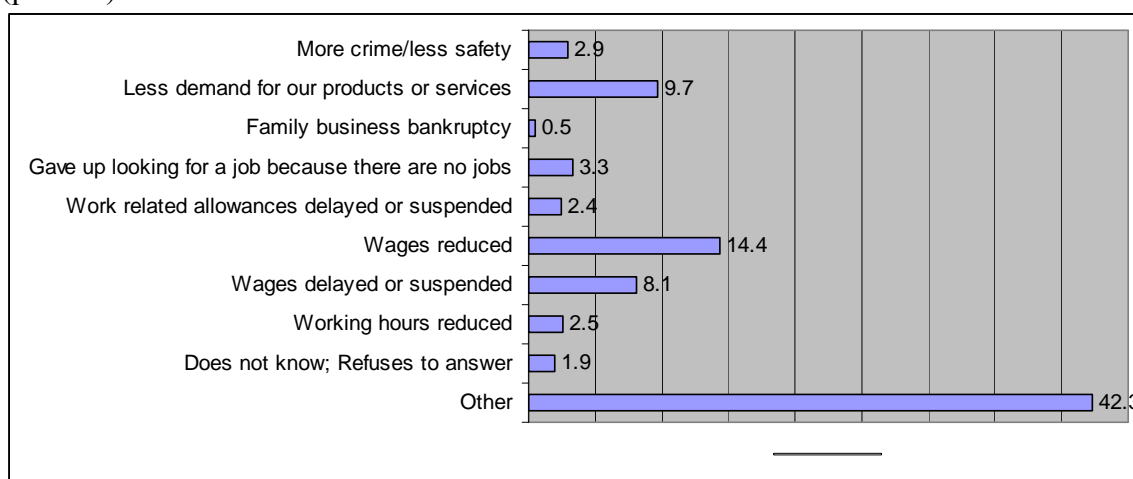
<sup>22</sup> To enrich the analysis of consumption during the crisis period and to compliment the discussion on income, a specific financial crisis module consisting of both the questions on consumption and the questions on the impact of the crisis and coping mechanisms was added to the LFS in April 2009. The consumption module is an abbreviated consumption aggregate and as such cannot be used for poverty analysis.

transitions and consumption levels was not possible at this point as the consumption module was not included in the earlier rounds of the LFS.

### Coping Strategies in the Period of the Crisis

As we noted earlier, for the great majority of the population in Serbia, the economic crisis has impacted on their individual and households' consumption. The impact has been negative and multifaceted. On the one hand, unemployment and deterioration of employment prospects, including the reduction in hours worked, delays or suspension of wages, and, finally, the reduction in wages, are among the factors explaining the decreasing trend in consumption in 2009. On the other, consumption confidence has declined due to financial insecurity. Presented in the graph below is the first and single response to the direct question on the impact of the crisis on Serbian households.

Perceptions about the impact of the crisis on households, first and single answer, 2009 Q2 (percent)



Source: RSO based on the consumption module data.

While the graph depicts nicely certain negative consequences of the crisis, it doesn't capture all the possible responses. The frequency of those who responded "Other" is rather high, suggesting that the provided answers do not fully represent the Serbian circumstances in the crisis period. The collected "Other" answers need to be recoded separately and analyzed further. The additional response that could be introduced concerns the possible questions on declining network support (*family, friends, relatives, neighbors*), or, more specifically, decreasing remittances and gifts. The findings of the qualitative studies suggest that in the periods of crises these kinds of support usually fail (CLDS, 2009).

In addition to the above discussed perceptions about the impact of the crisis, the financial crisis module also grasped the most significant coping mechanisms adopted by the population as their responses to the crisis. One of the novelties included asking the following question to the respondents: What have you or other household members done to mitigate the negative effects of the financial crisis? The incidences of adoption of the most frequent strategies are presented in the table below (*See Table 9 in Annex 2 for a more detailed table*). Table 15 shows how the respondents' single top answer to the question on coping strategies varied between men and women and across quintiles.

Table 15. Incidence of adoption of various coping strategies in 2009 (Q2), first/single answer - overall, by gender, by quintile (*the most frequent answers*)

Coping strategy	All	Gender		Quintiles				
		M	F	1	2	3	4	5
Postponed health expenses	6.7	6.2	7.9	8.1	7.1	7.2	5.5	5.7
Postponed other household expenses	43.5	43.2	44.1	43.7	44.8	45.5	42.1	41.4
Postponed investments in household's business	2.7	3.2	1.3	1.3	2.7	2.4	3.2	3.6
Postponed investments in household's farm	3.3	4.3	0.6	5.4	4.4	3.2	2.0	1.8
Had to use savings	13.9	14.1	13.4	11.9	12.3	14.5	16.4	13.7
Had to ask for a loan from a friend or relative in the country	6.3	5.3	8.8	10.3	8.2	5.5	4.1	4.3
Had to ask for assistance/support from a friend/relative from abroad	1.6	1.4	2.1	2.2	1.0	1.5	2.0	1.3
Had to ask for a loan from a person or institution	2.4	2.5	2.1	1.6	2.6	2.5	3.1	2.1
Postponed payment of credit card	2.3	2.5	1.7	0.6	2.0	1.9	4.3	2.5

Source: RSO estimates based in the financial crises module added to the April 2009 LFS

Overall and across all quintiles, the households reacted to the crisis with the postponement of certain household expenses (43.5 percent overall). That was usually the postponed consumption of non-food items, clothing, furniture, home appliances, and other durables. The second most frequent answer was the use of savings (13.9 percent overall). Almost equal number of respondents had to postpone covering health costs (6.7 percent overall) or to ask for a loan from a friend or relative living in Serbia (6.3 percent). The last two answers had slightly higher frequency among the respondents from the first quintile (8.1 and 10.3 percent respectively).

The observations about the coping mechanisms of the first quintile correspond only partially to the existing findings about the impact of the crisis on vulnerable groups. This is understandable as dealing with the vulnerable groups means focusing on the poorest among the poor. For the poorest and their coping strategies we seek out the evidence in the qualitative studies focusing solely on vulnerable such as social assistance recipients, the Roma, internally displaced persons, single mothers, small non-urban households, and similar. The latest study suggests that the most important coping strategy among them is the search for an additional job (Ipsos Strategic Marketing 2009). These are usually jobs in the informal market such as seasonal jobs, cleaning, home assistance, and construction works. The next coping mechanism, almost equally important as the previous one, is the reduction of consumption. Here, the households save on more expensive food items (*meat, fruits, sweets*) and increase consumption of the cheaper ones (*peas, potatoes, flour*). This decrease of consumption and the substitution effect are not clearly spelled out in the existing financial crisis module questionnaire and could be included as such. The savings are also made on postponed payments of utilities, clothing and footwear, and in meeting the children's needs in the households with children that are at the same time at higher risk of poverty (CLDS, 2009). Finally, the vulnerable often opt for government transfers such as child

allowances and social assistance as well as borrowing from relatives, friends, and neighbors. This ranking of existing coping mechanisms makes the vulnerable groups rather distinctive from the remaining population.

The other frequent coping strategies for the general population included the deferral of investments in the household's farming activity (3.3 percent overall) or the household's business (2.7 percent overall), as well as the requests for loans from other persons and institutions (2.4 percent overall) or delays of credit card payments (2.3 percent overall). Men had to postpone their investments in the farming/agricultural activity of their households more often than women, while women asked for the loans from in-country friends and relatives more often than men as their first coping strategy. At the same time, the postponement of investments in farming activities was more frequent in the households at the bottom end of distribution. Moreover, the focus group findings (Ipsos Strategic Marketing 2009) revealed that the vulnerable women in non-urban areas coped somewhat better than the men in the crisis. In the absence of farming activities, women were capable of finding additional cleaning or home assistance jobs. This could also mean that they were relatively more overburdened. Other than these observations, there were no significant differences in the responses of men and women.

With regard to applying for the government's social assistance, only 1.3 percent people in the bottom 20 percent ranked it as the first coping mechanism and they were more likely women. For the rest of the population this percentage was well below 1 percent, confirming one more time that social assistance is typically perceived as the measure of last resort and it is mostly pursued by the poorest segments of the society. However, the other study (CLDS, 2009) has confirmed that the number of social assistance recipients and the number of requests for social assistance and one-off benefits have increased in the period of the crisis. Important analyzing further would be on how targeted social assistance and labor market programs are targeting and helping vulnerable groups during the crisis.

Finally, we cannot conclude without noticing that for the richer population there is probably another range of full-fledged coping strategies that have not been listed in the table above which might be worth exploring further. To illustrate this, almost 18 percent of respondents belonging to the top quintile mentioned "Other" as their coping strategy while only 5 percent of the population in the bottom quintile did it (Table 9, Annex 2).

The overall description of coping mechanisms is no different if analyzed for different groups according to their labor market status such as employed individuals, the unemployed, inactive population, pensioners, public sector, and informal sector workers (Table 10 and Table 11, Annex 2). Naturally, the employed who were financially more capable than the other groups decide more often to postpone different investments as their first strategy. They, also, frequently opt for the use of savings, while the unemployed and inactive are more often forced to request loans from friends and relatives. The data also allow us to analyze the frequencies among pensioners, those employed in the public sector, and informal workers, who are usually viewed as the groups most affected by the crisis. The number of those who postpone the payment of medical expenses as the first strategic move is significantly higher among the pensioners. At the same time, informal sector workers<sup>23</sup> much more often single out the postponement of

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<sup>23</sup> In the LFS, informal employment is defined using the job-based concept. Informal jobs are the jobs that lack basic social or legal protection where social protection includes paid leave, social insurance contributions and pension while legal protection assumes the existence of a formal contract.

investments in household farming activities, while the public sector workers delay credit card payments more often. Similarly to the previous discussion, the postponement of household expenses and the utilization of savings funds remain the top two coping strategies among the surveyed households.

Prompted to provide further explanations about their coping strategies (not only the first nor single answer), the respondents listed the following as the most important ones (Table 12, Annex 2): postponing household's expenses (27.7 percent), using the savings (20. percent), postponing health expenses (13.2 percent) - particularly among women (17.2 percent compared to 11.7 among men), requesting loans from friends and relatives (11.2 percent), delaying credit card payments (5.7 percent), postponing investments in family business (5.5 percent) and agricultural activities (5.4 percent). While the frequencies are clearly different, the order of coping strategies remains more or less the same as in the case of the top single answer. The picture becomes significantly different with the assisted answers (Table 13, Annex 2) where the postponement of households' expenses and the use of saving funds become equally important, and the loan support by friends and family more important than the postponement of health expenses. These are followed by the delays of credit card payments, loan requests to other persons and institutions, and the postponement of other credit/loan payments.

*To conclude, the primary coping mechanisms adopted by the Serbian households during the crisis was to postpone or cut down on expenditures. The second most frequent mechanism was the use of savings. For the vulnerable groups it was the search for an additional work in the informal sector. However, as economic activity declined, the jobs in the informal market became scarce making their prospects even harsher. Households also responded by relying on loans and private income transfer from relatives and friends. As income growth was suspended and employment declined economy-wide, the amount of such transfers shrank (CLDS, 2009). Taken together, this has made it very difficult for the population, and particularly for the vulnerable groups, whose living conditions are extremely poor, to deal with the negative consequences of the crisis.*

## 6. SOME POLICY RECOMMENDATIONS

To mitigate effects of the global financial crisis, the Government of Serbia adopted modest measures aiming primarily at financial stability, the real sector and employment (Government of the Republic of Serbia, 2009). **With already excessive public spending and a considerable budget deficit there are no financial resources and/or wide range of real options for large scale crisis intervention policies in Serbia.**

Faced with these real limitations, the government, in part also bound by the agreement with the IMF, decided on freezing pensions and wages in the public sector during 2010 and also on decreasing employment in public administration next year. This on the one hand should be assessed as positive, having in mind excessive public spending. However the government intervention package will obviously affect the situation in the labor force market in the forthcoming period. It is of course possible that the public administration focuses primarily on retirement of those who are eligible or will be eligible for pension once they stop receiving unemployment benefits. In that case decreased employment resulting from such a government policy would contribute to a further increase in number and share of the non-active population.

In the context of already low activity rates, possible measures for their increase should be contemplated, some of which are being considered within the forthcoming pension system reform, such as increasing the minimum retirement age, increasing the minimum years of service for retirement for women and introducing stricter retirement eligibility criteria for privileged categories (with accelerated years of service).

The labor market flexibility in Serbia is generally low, especially in the formal sector and this was clearly revealed during the crisis. Having in mind the limited government options to intervene with Keynesian type policies it can even be said that in the short-term the inflexibility of the labor market had positive effects, assuaging the negative social consequences of the decreased economic activity. In spite of the above and the fact that times of crisis are not favorable for radical changes in labor legislation, it should not be forgotten that low labor market flexibility hinders an accelerated restructuring of the economy and economic growth in the long run.

*Active labor market programs* in Serbia are modest, primarily due to fiscal reasons. Perhaps this is not negative in itself since the majority of these measures often produce unsatisfactory results. However, the crisis is always a good moment to reconsider all options.

Public works programs were an important component of the overall safety net package during the crises in some countries (World Bank, 2010). It is possible to consider expanding the existing public works envelope within the ALM programs in Serbia as well. If it is not realistic to increase funds for these purposes due to budgetary limitations, then the public work programs could be restructured in order to additionally target the poor population in the areas mostly affected by crises.

In line with the presented results on poverty and labor market analyses, Central Serbia without Belgrade and the non-urban areas are probably the areas that should be given priority. In addition, public works programs should be re-designed in order to primarily employ the poor and

not those vulnerable from the labor market aspect, such as the long-term unemployed and the youth. Out of practical reasons, priority could be given to persons from households already targeted as poor i.e. beneficiaries of social assistance and child allowance programs. Thus, priority in public works could be given to able-bodied social welfare beneficiaries who are not eligible for benefits for 3 months during one year, or those who have applied for social assistance, but were turned down because they are just above the administrative poverty line according to the existing law, or those who are beneficiaries of one-off cash social assistance provided by local governments.

The same principle of additional targeting could be applied to the other three active labor market programs. The question is, however, whether programs such as subsidies and cheap loans can have positive effects on employment, and especially who are the “winners” of these budget reallocations. Generally, it would be necessary to analyze in detail the effects and efficiency of current active labor market programs, and in line with the findings recommend the required changes.

In the area of the *state's financial support to the poor*, it is possible to examine changes within two targeted programs: cash social assistance benefits and child allowances. Within the first, it should be noted that a new draft Law on social protection has been prepared and is in public debate.

This draft Law proposes an increase in equivalency scales when defining the census/amount of social assistance. This change will, both, increase the value of benefits to current beneficiaries and expand the coverage to reach the households still currently outside the system. According to estimates the new law will enable a wider coverage of poor households of almost 40 percent and eliminate one of the largest weaknesses in the current program. These weaknesses have been highlighted and documented by various studies and research (CLDS, 2003; Matković, Mijatović, 2009; World Bank, 2009). The budgetary effects will also be significant, but bearable having in mind the currently extremely low allocations for this program. (World Bank, 2009, p.51)

Extending the cash social benefit program has also received support from international financial institutions. The World Bank in its report „Serbia: Doing more with less“ provided explicit support to the proposed changes and higher budgetary expenditures for this purpose.(World Bank, 2009, p.51). In addition, a general recommendation during crisis is to extend programs for the poor, if they are relatively well targeted (World Bank, 2010), as is the case in Serbia.

Thus it would be important to introduce these changes already in 2010, in order to alleviate the negative effects of the crisis on the poorest. Of course this would require the necessary budgetary adjustments. It should however be emphasized that the full financial effects of the proposed changes will not be fully reflected in budgetary expenditures immediately following the enactment of the new law, both due to administrative reasons (transferring beneficiaries into the new system) and due to the time needed for new potential beneficiaries to react. It is estimated that for these same reasons the previous amendments to the law enacted in 2005 had its full effect on the increase in the number of beneficiaries with a delay of several years.

Regarding child allowances, that cover a much larger number of the poor households, it seems that in conditions of present budgetary constraint there are no possibilities for expanding this program.

For formulating and monitoring policies solid *statistics data* are a prerequisite. As shown from the conducted research, although it has been significantly improved over time, the quality of the surveys is not quite satisfactory. One of the problems is definitely the inadequacy of the sample framework, since it is based on the census conducted in the distant 2002, causing a high standard error. If the population census is conducted next year this problem will be eliminated. The conducted research however clearly demonstrates the need to also increase the sample for the LFS. Quality analyses at a lower level of disaggregation and for shorter intervals obviously require a larger sample. Additionally, there is room for re-examining the set of questions in this statistical research. In that regard, it would be useful to further explore the possibilities within the existing *Financial Crisis Module* attached to the LFS and improve the questionnaire in a way that would better reflect the circumstances in Serbia. Currently, irrespective of whether the focus is on the perceptions about the impact of the crisis or on the coping mechanisms, a great share of respondents do not opt for any of the listed answers. Hence, the questions could be enriched and rephrased to better gauge the perceptions.

Additionally, there is an urgent need to further improve regular statistics so labor market fluctuations could be analyzed based on multiple sources. For this to be possible, one of the prerequisites is linking IT systems of different state institutions.

In future poverty research, the focus should be on preparing and introducing SILC, for which EU funds are available for next year. In the meantime, it would be desirable that the Republic Statistics Office officially publishes at least the main findings on poverty, especially since there is confusion and a lack of understanding of different data both among the public, and decision-makers. Based on the findings from this study as well, data at lower levels of disaggregation should be published semi-annually or annually, since at the level of quarters the data is not sufficiently reliable.

Finally, in the forthcoming period it is necessary to carefully research and analyze the next LFS and HBS, in order to fully observe the consequences of the crisis in Serbia.

## ANNEX 1 – LABOR MARKET, BEFORE AND DURING THE CRISIS

### Labor market before the crisis

**Table 1.**

Activity rate, 15+ (percent)

Year	Total	Women	Men
2005	53.5	44.6	63.0
2006	51.0	42.5	60.1
2007	51.0	42.8	59.7
2008	53.5	43.3	60.4

Source: LFS

**Table 2.**

Employment rate, 15+, %

	Total	Women	Men
2005	42.3	32.9	52.4
2006	40.4	32.0	49.3
2007	41.8	33.8	50.3
2008	44.4	36.5	53.2

Source: LFS

**Table 3.**

Employment structure, by regions as a percentage of the total employment

Region	2005	2006	2007	2008
Vojvodina	27.5	28.6	26.2	25.6
Belgrade	20.3	21.5	22.1	20.7
Central Serbia	52.2	49.9	51.7	53.7
Total	100	100	100	100

Source: LFS

**Table 4.**

Table 8. Types of ownership as percentage of the total employments

	2006	2007	2008	2006	2007	2008
Sectors	Total			Women		
Social Ownership	8.9	6.0	3.0	6.0	4.3	2.5
Private Ownership	62.1	65.2	70.9	65.2	62.1	67.4
State Ownership	26.3	25.5	24.4	25.5	30.8	28.8
Other types of ownership	2.8	3.3	1.7	3.3	2.8	1.4

Source: LFS

**Table 5.**  
Employment by industry (percent)

<b>Type of industry</b>	<b>2005</b>	<b>2008</b>
Agriculture, forestry and water works supply	23.2	25.1
Fishing	0.1	0.1
Mining and quarrying	1.2	1.1
Manufacturing industry	18.2	17.2
Electricity, gas and water supply	2.1	1.6
Construction	6.1	6.3
Wholesale and retail trade, repairs	14.9	14.8
Hotels and restaurants	2.9	3.0
Transport, warehousing and communications	5.6	5.6
Financial intermediation	1.6	2.0
Real estate and rental	2.6	3.3
Public administration and social insurance	5.8	4.8
Education	5.2	4.3
Health and social work	5.8	6.2
Other utility, social and personal services	4.4	4.4
Other	0.3	0.2
Total, in 000	2733.4	2821.7

Source: LFS

**Table 6.**  
Unemployment rate by regions, 2008 (percent)

	<b>Total</b>	<b>Men</b>	<b>Women</b>
Serbia	13.6	11.9	15.8
Vojvodina	13.8	12.3	15.9
Belgrade	13.8	13.2	14.5
Central Serbia	13.5	11.2	16.4

Source: LFS

**Table 7.**  
Length of unemployment, 2008 (percent)

<b>Length of time</b>	<b>Total</b>	<b>Women</b>
up to 1 year	28.9	28.9
1-2 years	17.1	17.1
2-4 years	15.3	16.7
4-6 years	17.1	16.0
7-10 years	11.1	10.9
over 10 years	10.6	12.5

Source: LFS

**Table 8.**

Average wage trends by sectors

	changes, constant prices, %			Wages in RSD
	2006	2007	2008	2008
<b>Total</b>	<b>11.4</b>	<b>19.5</b>	<b>3.9</b>	<b>32746</b>
Agriculture, forestry and water management	14.4	12.3	10.7	26696
Fishing	-11.6	-9.7	18.2	20921
Mining and quarrying	14.1	21.7	0.5	39729
Processing industry	13.7	16.4	5.4	26391
Production of electric energy, gas and water	6.5	22.1	-4.1	41222
Civil engineering	12.8	21.1	6.9	30178
Wholesale and retail trading, repairs	14.7	17.3	8.0	30561
Hotels and restaurants	9.5	18.5	3.2	21800
Transport, storage and connections	8.8	12.7	3.5	35046
Financial intermediation	12.7	12.7	-2.2	65419
Public administration and social insurance	3.3	24.8	-2.4	37531
Education	9.3	15.2	0.2	38730
Health and social work	9.0	19.1	5.5	34451
Other utilities and personal services	9.1	28.3	0.2	34878
Households with employed members	5.0	11.9	0.9	31674

Source: RSO

**Table 9.**

Average wages by regions. Serbia =100

Region	2005	2006	2007	2008
Central Serbia	90,8	88,3	89,3	89,3
Belgrade	126,4	132,6	127,7	137,9
Vojvodina	98,0	96,0	97,7	91,7
Serbia	100	100	100	100

Source: LFS

**Table 10.**

Ratio of average wage of men and women, 2005-2008

Year	Ratio
2005	1.15
2006	1.12
2007	1.13
2008	1.11

Source: LFS

## Labor market during the crisis

**Table 11.**

Employment by gender, change in percent

<b>Gender</b>	<b>Oct08/ Apr08</b>	<b>Apr09/ Oct08</b>	<b>Apr09/ Apr08</b>	<b>Apr09, in 000</b>
Men	0.5	-7.2	-6.8	1498,2
Women	-3.3	-3.8	-7.0	1144,5

Source: LFS

**Table 12.**

Formal and informal sectors, changes in percent

<b>Sector</b>	<b>Total Oct08/ Apr08</b>	<b>Total Apr09/ Oct08</b>	<b>Women Oct08/ Apr08</b>	<b>Women Apr09/ Oct08</b>
Employed in informal sector	-3.7	-9.4	-8.2	-8.8
Employed in formal sector	-0.4	-4.7	-1.5	-2.1

Source: LFS

**Table 13.**

Employment, urban and non-urban settlements, changes in percent

<b>Area</b>	<b>Oct08/Apr08</b>		<b>Apr09/Oct08</b>	
	<b>Total</b>	<b>Women</b>	<b>Total</b>	<b>Women</b>
Urban	0.7	-0.3	-6.3	-3.7
Non-urban	-3.2	-7.1	-5.3	-4.0
Total	-1.2	-3.3	-5.8	-3.8

Source: LFS

**Table 14.**

Employment by region, changes in percent

	<b>Total</b>		<b>Women</b>
	<b>Oct08/ Apr08</b>	<b>Apr09/ Oct08<sup>24</sup></b>	<b>Apr09/ Apr08</b>
Serbia	-1.2	-5.8	-7.0
Central Serbia	-3.1	-7.1	-11.8
Belgrade	2.7	-1.5	2.1
Vojvodina	-0.2	-6.6	-4.8

Source: LFS

**Table 15.**

Employment per industry, changes in percent, Apr 09 relative to Oct 08

	<b>Total</b>	<b>Women</b>
<b>Total</b>	-5.4	-5.0
Agriculture, forestry and water works supply	<b>-9.2</b>	-10.5
Fishing	-1.0	0.0
Mining and quarrying	-0.4	-0.6
Manufacturing industry	-7.4	-10.1
Electricity, gas and water supply	5.4	-0.6
Construction	-13.1	-14.6
Wholesale and retail trade, repairs	-3.5	-1.0
Hotels and restaurants	-10.7	10.7
Transport, warehousing and communications	-4.4	-6.7
Financial intermediation	7.1	7.0
Real estate and rental	-2.7	-7.9
Public administration and social insurance	-0.9	5.6
Education	2.6	4.3
Health and social work	-2.5	-4.2
Other utilities, social and personal services	-1.6	5.0

Source: LFS panel data

**Table 16.**

Education level of employees

	Apr09/Oct08, in %		Apr09, in 000
	<b>Total</b>	<b>Women</b>	<b>Total</b>
Total	-5.4	-5.0	2610.3
Incomplete primary school	-5.7	-3.8	220.7
Primary school	-5.8	-8.3	441.6
Secondary school	-7.0	-6.0	1480.7
College, university...	0.5	-0.7	467.4

Source: LFS panel data

**Table 17.**

Change of employment per age groups, in percent

<b>Age group</b>	Oct08/Apr08			Apr09/Oct08		
	<b>Women</b>	<b>Total</b>	<b>Men</b>	<b>Women</b>	<b>Total</b>	<b>Men</b>
15-29	-0.9	1.0	2.2	-3.8	-13.6	-19.7
30-44	-2.7	-0.8	0.7	-5.2	-5.3	-5.3
45-59	-4.0	-1.6	0.3	-3.5	-4.8	-5.7
60+	0.0	-4.2	-2.5	0.6	1.2	1.6

Source: LFS

**Table 18.**

Changes in employment per profession, in percent

Profession	Oct08/Apr08		Apr09/Oct08	
	Total	Women	Total	Women
Legislators, officials, managers	14.2	5.8	-12.6	-14.4
Experts	3.2	2.4	-2.5	-0.3
Expert associates and technicians	0.2	-5.8	-1.9	1.9
Clerks	-0.6	-0.1	-4.5	-1.6
Service sector workers and salespersons	2.5	6.1	-3.3	-3.5
Skilled workers, equipment operators, craftsmen, etc.	-7.0	-14.6	-5.4	-6.1
Unskilled professions	8.8	7.7	-16.7	-9.5

Source: LFS

**Table 19.**

Share and changes in unemployment, regions (percent)

	Share	Changes				Apr09/Apr08
	Apr08	Oct08/Apr08		Apr09/Oct08		
	in%	Total	Women	Total	Women	
Serbia	100	5.5	6.9	6.9	1.6	12,7
Central Serbia	53.6	3.1	3.4	14.3	7.0	17,8
Belgrade	20.6	10.0	11.2	-7.5	-9.4	1,7
Vojvodina	25.8	6.8	11.7	3.9	-0.9	10,9

Source: LFS

**Table 20.**

Changes in unemployment, urban and non-urban population (percent)

Area	Oct/Apr08		Apr09/Oct08	
	Total	Women	Total	Women
Urban	8.4	9.9	8.1	2.2
Non-urban	0.4	1.9	4.5	0.5

Source: LFS

**Table 21.**

Share and changes in unemployment, age structure (percent)

	Share Apr08	Apr09/ Apr08
Age	Total	Total
Total	100	12.7
15-29	38.6	-7.4
30-44	33.6	-9.5
45-59	26.7	-23.2
60+	1.4	-35.3

Source: LFS

**Table 22.**

Share and changes in unemployment, level of education (percent)

	Share	Changes			
	Apr08	Oct08/Apr08		Apr09/Oct08	
	Total	Total	Women	Total	Women
Total	100	5.5	6.9	6.9	1.6
Incomplete primary school	3.8	-19.9	-23.9	4.4	21.1
Primary school	17.1	4.9	-4.3	7.2	11.8
Secondary school	67.9	7.1	12.7	6.2	-3.6
College, university, academy, masters, doctorate	11.3	4.6	1.7	11.0	12.7

Source: LFS

**Table 23.**

Average wages, in Dinars

	April08	October08	April09
Wages, LFS	25668	26602	27425
Wages, LFS, constant prices	25668	25638	25340
Change, wages LFS ARS in %		-0.1	-1.2
Wages, RAD	32562	34311	32571
Change, wages, RAD, constant prices, in %		1.6	-9.0

Source: LFS, RAD

**Table 24.**

Ratio: wages/gender, April 2009.

Gender	Informal	Formal
Serbia	100	100
Men	107.5	103.5
Women	84.9	95.9

Source: LFS

**Table 25.**

Wages in urban and non-urban areas

Area	April08	October08	April09
Serbia	100	100	100
Urban	1.08	1.09	1.08
Non-urban	0.84	0.83	0.84

Source: LFS

**Table 26.**

Wages per region

	April08	October08	April09
Serbia	100	100	100
Central Serbia	0.89	0.92	0.92
Vojvodina	0.93	0.92	0.91
Belgrade	1.27	1.27	1.24

Source: LFS

**Table 27.**

Ratio and changes of wages per profession

	<b>Oct08</b>	<b>Growth Apr09/Oct08</b>
Serbia	100	-4.2
Legislators, officials, managers	161.8	-3.5
Experts	139.3	-4.2
Expert associates and technicians	101.5	-3.4
Clerks	89.7	-3.5
Service sector workers and salespersons	69.9	-5.1
Skilled workers in agriculture and fishery	55.2	0.6
Craftsmen and similar	83.5	-6.5
Equipment operators and fitters	86.7	-3.1
Unskilled professions	64.2	-4.6
Military personnel	131.7	-5.0

Source: LFS panel data

**Table 28.**

Ratio of average wages per age group

	<b>Apr08</b>	<b>Oct08</b>	<b>Apr09</b>
Serbia	100	100	100
15-29	0.80	0.80	0.83
30-44	1.02	1.00	1.01
45-59	1.07	1.08	1.06
60+	0.79	1.35	0.98

Source: LFS

**Table 29.**

Working activity (percent)

<b>Economic activity status</b>	<b>October 2008</b>	<b>April 2009</b>
Employed	44.2	41.6
Unemployed	7.2	7.7
Inactive	48.6	50.7
Total 15+	100	100

Source: LFS panel data

**Table 30.**

Change of quintiles per wages October 2008-April 2009 (percent)

		% change	% gain/ loss	Share in total change
	<b>Serbia</b>	<b>11.4</b>	<b>50</b>	<b>100</b>
Region	Central Serbia	12.0	58.4	52.9
	Belgrade	11.1	48.1	20.4
	Vojvodina	10.6	34.7	26.7
Type of settlement	Urban	13.1	50.1	61.2
	Non-urban	9.4	49.8	38.8
Profession	Legislators, officials and managers	2.4	100.0	0.9
	Experts	15.4	55.7	12.2
	Expert associates and technicians	15.8	52.9	18.2
	Clerks	17.8	49.8	9.9
	Service sector workers and salespersons	11.9	56.5	14.2
	Skilled workers in agriculture and fishery	0.5	100.0	0.7
	Craftsmen and similar	16.4	36.5	22.5
	Equipment operators and fitters	16.1	44.6	10.9
	Unskilled professions	14.8	55.1	10.2
	Military personnel	30.5	100.0	0.3
Education	No school	0.0		0.0
	Incomplete primary school	2.0	84.6	1.3
	Primary school	7.6	31.9	12.3
	Secondary school	13.8	50.5	70.1
	College	16.9	55.3	7.4
	Faculty, academy or higher degree	9.4	61.4	8.9
Age	15-30	15.4	58.2	21.3
	31-40	13.3	54.3	27.0
	41-50	12.2	50.5	26.4
	50+	8.0	37.9	25.3
Sector	Agriculture, forestry and water works supply	2.0	57.0	4.3
	Fishing	0.0		0.0
	Mining and quarrying	32.2	43.6	2.2
	Manufacturing industry	18.9	47.1	30.7
	Electricity, gas and water supply	17.8	35.1	2.7
	Construction	13.0	32.4	7.8
	Wholesale and retail trade, repairs	11.0	67.0	12.8
	Hotels and restaurants	7.3	50.8	1.8
	Transport, warehousing and communications	14.6	35.9	7.0
	Financial intermediation	17.5	35.1	2.8
	Real estate and rental	10.0	33.2	3.4
	Public administration and social insurance	16.0	70.6	6.7
	Education	12.5	66.3	4.0
	Health and social work	13.6	49.7	8.8
Other utilities, social and personal services	10.6	52.8	4.5	

Source: LFS panel data

Notes: (1) the first column shows the usual percentage of persons from quintiles that moved into other quintiles; the second and the third column use weighted sums of persons who changed quintile with the weight being a number of changed quintiles (e.g.: 2 if there was move from the second into the fourth quintile); (2) in the second column, the gain outweighs when the number is in excess of 50, and the loss less than 50.

**Table 31.**

Change of working status of population aged 15+ between October 2008 and April 2009, in %

		Total status changed	Employed into unemployed	Employed into inactive	Unemployed into employed	Unemployed into inactive	Inactive into employed	Inactive into unemployed	Share in Serbia =100
Region	Central Serbia	11.5	2.3	6.2	0.6	0.4	1.1	0.8	54.0
	Belgrade	15.9	3.8	3.5	0.6	2.3	5.0	0.7	20.2
	Vojvodina	12.2	2.8	3.7	1.3	1.4	1.3	1.6	25.8
Type of settlement	Urban	12.8	3.1	3.9	1.2	1.5	1.9	1.3	53.9
	Non-urban	12.3	2.3	6.4	0.3	0.5	2.1	0.7	46.1
Education	No education	32.4	0.0	12.4	0.0	8.6	11.5	0.0	0.8
	Incomplete primary school	17.1	0.8	10.8	0.4	1.1	3.2	0.7	7.6
	Primary school	14.5	1.5	8.0	0.3	0.5	1.8	2.3	17.0
	Secondary school	13.2	4.0	4.3	1.1	1.2	1.7	0.9	57.7
	College	8.2	0.9	2.8	1.2	1.0	2.2	0.0	5.6
	Faculty, academy or higher degree	3.9	0.0	0.8	0.2	0.7	1.6	0.6	11.2
Age	15-30	22.4	6.3	5.8	2.3	2.6	3.1	2.3	14.9
	31-40	10.2	3.3	2.6	1.1	1.1	1.3	0.8	23.3
	41-50	7.5	2.0	2.6	0.5	0.5	1.3	0.7	25.8
	Over 50	13.6	1.4	8.0	0.2	0.8	2.4	0.9	36.0

## ANNEX 2 – POVERTY BEFORE AND AFTER THE CRISIS

### Poverty before the crisis

**Table 1.**  
Poverty incidence, all population (percent)

	2006	2007	2008 (Q1-Q3)	2008 Q3	2008 Q4	2009 (Q1-Q2)
Urban/Non-urban areas, male population						
Urban areas	5.4	6.0	5.6	3.8	3.2	5.1
Non-urban areas	12.4	10.6	7.1	6.4	8.1	10.7
Total	8.5	8.0	6.3	5.0	5.3	7.6
Urban/Non-urban areas, female population						
Urban areas	5.1	6.0	5.2	3.9	3.5	5.3
Non-urban areas	14.1	11.9	7.1	5.3	8.5	10.0
Total	9.1	8.5	6.0	4.5	5.6	7.2
Education level, all population						
Unfinished primary school	18.8	17.3	10.7	10.9	11.1	18.0
Primary school	12.3	10.9	8.5	5.6	9.2	9.7
Secondary school	5.3	5.4	4.8	3.1	2.9	4.1
Two-year post secondary school	1.1	1.1	2.1	0.7	1.5	2.2
University education	2.0	0.7	1.2	0.5	0.4	0.8
Total	8.3	7.8	6.0	4.5	5.2	7.0
Education level, male population						
Unfinished primary school	20.2	18.2	11.8	10.3	12.6	21.4
Primary school	13.0	11.6	9.4	8.4	10.9	11.2
Secondary school	5.9	6.2	4.8	3.1	3.2	4.6
Two-year post secondary school	0.5	0.7	2.2	1.4	1.8	2.1
University education	2.4	0.8	0.7		0.8	1.5
Total	8.2	7.7	5.9	4.5	5.3	7.2
Education level, female						

population						
Unfinished primary school	18.1	16.8	10.2	11.2	10.5	16.3
Primary school	11.8	10.3	7.7	3.6	7.8	8.4
Secondary school	4.5	4.6	4.7	3.1	2.6	3.7
Economic activity, all population						
Self-employed – with employees	1.2	-	0.9	2.9	-	2.8
Self-employed – without employees	11.2	10.8	5.4	6.5	4.6	6.1
Employed in the private sector	5.2	5.5	4.8	3.1	5.8	4.7
Employed in the public and others sector	3.7	2.7	2.1	1.1	0.3	2.8
Unpaid family worker	12.7	12.8	3.0	3.3	8.0	5.4
Unemployed	15.0	11.5	12.4	10.7	11.3	13.9
Pupil/student	5.4	4.5	4.5	3.7	3.1	4.4
Housewife	13.5	15.0	8.9	4.3	8.2	15.3
Retired	7.2	6.3	5.8	3.4	3.7	5.9
Person with receipts	30.3	43.2	18.4	12.0	22.5	29.8
Disabled	21.1	22.5	19.7	24.3	22.0	33.4
Military service/prison	9.0	20.9	29.2			
Other	28.8	19.2	29.2	13.9	12.3	20.5
Total	8.3	7.8	6.0	4.5	5.2	7.0
<b>Economic activity, male population</b>						
Self-employed – with employees	1.5	-	-	-	-	4.1
Self-employed – without employees	10.1	11.2	5.6	6.5	5.0	5.1
Employed in the private sector	6.3	6.2	5.5	2.7	6.9	5.0
Employed in the public and others sector	4.7	3.6	2.2	1.7		3.9
Unpaid family worker	13.8	10.7	3.7	4.7	7.6	7.6
Unemployed	15.3	12.4	13.1	13.2	11.4	16.8
Pupil/student	6.4	4.8	4.6	3.0	2.7	4.7
Housewife	-	-	-	-	-	-
Retired	7.9	7.7	6.0	2.9	4.7	7.4
Person with receipts	24.6	28.2	10.1	8.1	50.2	33.5
Disabled	19.9	26.3	14.5	18.9	31.0	52.2
Military service/prison	9.0	20.9	29.2			
Other	25.1	20.5	25.7	15.5	27.9	13.0
Total	8.2	7.7	5.9	4.5	5.3	7.2

Economic activity, female population						
Self-employed – with employees	-	-	3.8	9.5	-	-
Self-employed – without employees	14.5	9.5	4.6	6.6	3.4	10.5
Employed in the private sector	3.7	4.5	3.8	3.6	4.2	4.3
Employed in the public and others sector	2.4	1.8	2.0	0.5	0.6	1.6
Unpaid family worker	12.2	13.8	2.7	2.6	8.2	4.1
Unemployed	14.8	10.8	11.7	8.5	11.1	11.5
Pupil/student	4.5	4.2	4.4	4.3	3.4	4.0
Housewife	13.6	15.1	9.0	4.3	8.2	15.3
Retired	6.6	5.2	5.6	3.7	2.9	4.7
Person with receipts	34.1	55.7	26.8	16.4	10.4	24.3
Disabled	21.8	20.8	22.8	27.1	19.5	22.6
Military service/prison	-	-	-	-	-	-
Other	33.4	17.4	33.7	-	-	27.6
Total	8.5	7.8	6.1	4.5	5.1	6.8
Age cohort, all population						
0 – 6	12.5	13.2	7.9	6.4	6.3	9.4
7 -14	10.7	9.9	6.5	6.3	7.3	10.9
15 – 25	8.7	6.9	6.8	5.3	4.8	6.9
26 – 60	7.7	7.0	5.4	4.2	5.0	6.5
60+	9.6	9.7	6.8	4.6	5.9	7.8
Total	8.8	8.3	6.1	4.7	5.4	7.4
Age cohort, male population						
0 – 6	12.3	11.2	9.0	7.4	2.7	9.7
7 -14	8.6	8.7	8.4	8.3	6.9	10.5
15 – 25	9.0	6.9	6.9	4.4	4.7	7.5
26 – 60	7.7	7.3	5.5	4.9	5.0	6.6
60+	8.7	9.3	6.1	3.8	6.5	8.1
Total	8.5	8.0	6.3	5.0	5.3	7.6
Age cohort, female population						
0 – 6	12.7	15.0	6.7	5.2	10.1	9.1
7 -14	12.9	11.2	4.2	4.2	7.8	11.4
15 – 25	8.3	7.0	6.7	6.1	4.8	6.2
26 – 60	7.6	6.8	5.3	3.7	4.9	6.4

60+	10.3	10.1	7.3	5.2	5.5	7.6
Total	9.1	8.5	6.0	4.5	5.6	7.2

**Table 2.**

Poverty by economic activity of the household head, 2006-2008(Q1-Q3) (percent)

<b>Economic activity</b>	<b>2006</b>	<b>2007</b>	<b>2008 Q1-Q3</b>
Self-employed	12.5	12.6	6.2
Employed in the private sector	7.6	6.7	5.0
Employed in the public and others sector	3.3	3.1	2.4
Unemployed	14.7	10.9	16.5
Retired	8.7	7.6	5.9
Persons with receipts <sup>25</sup>	46.2	41.7	23.2
Total <sup>26</sup>	8.8	8.3	6.1

Source: RSO estimates based on the HBS data.

**Table 3.**

Poverty by education of household head, 2006-2008(Q1-Q3) (percent)

<b>Education level</b>	<b>2006</b>	<b>2007</b>	<b>2008 Q1-Q3</b>
Unfinished primary school	20.8	18.8	9.2
Primary school	13.7	13.2	9.2
Secondary school	5.5	5.4	5.4
Two-year post secondary school	0.6	0.1	2.5
University education	1.8	0.4	1.6
Total	8.8	8.3	6.1

Source: RSO estimates based on the HBS data.

<sup>25</sup> 'Persons with receipts' include (but are not limited to) social welfare transfers recipients.

<sup>26</sup> Other categories by economic activity of the household head included unpaid family workers, students, housewives, the disabled, and persons involved in military service.

**Table 4.**

Poverty by education of household head – male/female heads comparatively, 2006-2008(Q1-Q3) (percent)

<b>Education level, male</b>	<b>2006</b>	<b>2007</b>	<b>2008 Q1-Q3</b>
Unfinished primary school	21.0	18.6	8.9
Primary school	14.0	14.3	10.2
Secondary school	5.8	6.1	5.7
Two-year post secondary school	0.4	0.2	1.9
University education	1.9	0.5	0.6
Total	8.6	8.3	6.2
Education level, female			
Unfinished primary school	20.4	19.2	9.7
Primary school	12.7	9.6	5.4
Secondary school	3.8	2.7	4.1
Two-year post secondary school	1.2	-	5.4
University education	1.4	-	5.1
Total	9.5	7.9	6.0

Source: RSO estimates based on the HBS data.

**Table 5.**

Poverty by age groups, 2006-2008(Q1-Q3) (percent)

<b>Age cohort, all population</b>	<b>2006</b>	<b>2007</b>	<b>2008 Q1-Q3</b>
0 - 6	12.5	13.2	7.9
7 -14	10.7	9.9	6.5
15 - 25	8.7	6.9	6.8
26 - 60	7.7	7.0	5.4
60+	9.6	9.7	6.8
Total	8.8	8.3	6.1

Source: RSO estimates based on the HBS data.

**Table 6.**

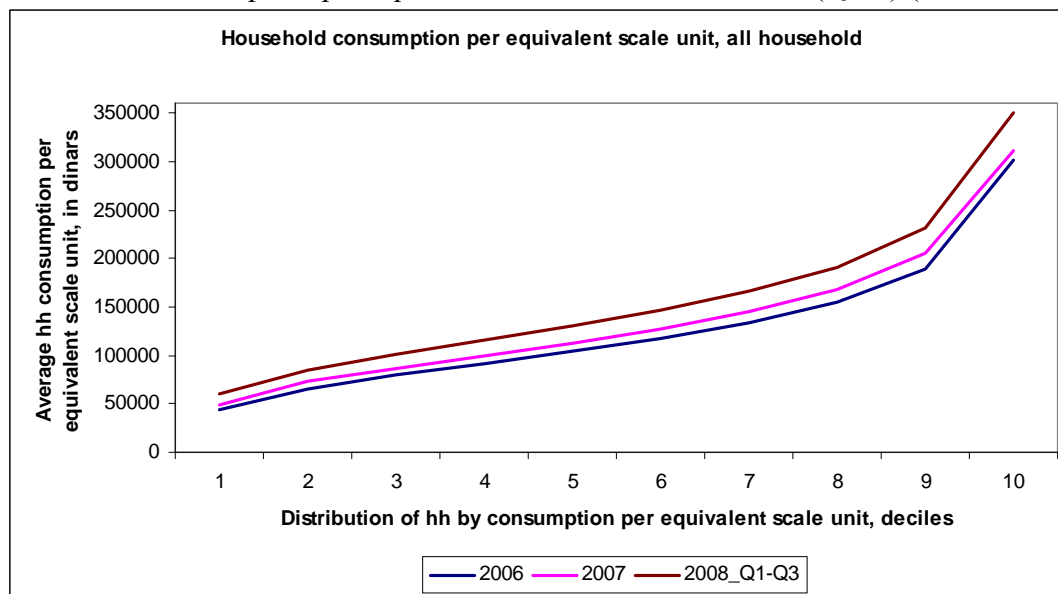
Poverty by age cohort of household head, 2006-2008(Q1-Q3) (percent)

Age cohort	2006	2007	2008 Q1-Q3
15 – 25	12.7	15.5	14.0
26 – 60	8.1	7.4	6.3
60+	9.8	9.6	5.7
Total	8.8	8.3	6.1
Age cohort, male			
15 – 25	5.3	-	14.7
26 – 60	8.1	7.7	6.3
60+	9.6	9.7	5.9
Total	8.6	8.3	6.2
Age cohort, female			
15 – 25	23.8	28.7	12.9
26 – 60	8.2	6.1	6.9
60+	10.3	9.5	5.0

Source: RSO estimates based on the HBS data.

**Graph**

Household consumption per equivalent scale unit in 2006-2008(Q1-3) (all households)



Source: RSO based on the HBS data.

## Poverty during the crisis

**Table 7.**

Poverty by education level of the household head, 2006-2009 (Q1-Q2) (percent)

	2006	2007	2008 Q1-Q3	2008 Q3	2008 Q4	2009 Q1-Q2
<b><i>Education level</i></b>						
Unfinished primary school	20.8	18.8	9.2	7.8	7.8	17.6
Primary school	13.7	13.2	9.2	7.8	13.8	13.3
Secondary school	5.5	5.4	5.4	3.7	2.5	4.1
Two-year post secondary school	0.6	0.1	2.5	2.0	3.3	2.3
University education	1.8	0.4	1.6	1.0	1.7	0.8
Total	8.8	8.3	6.1	4.7	5.4	7.4
<b><i>Education level, male</i></b>						
Unfinished primary school	21.0	18.6	8.9	6.5	7.6	20.9
Primary school	14.0	14.3	10.2	9.5	15.5	15.3
Secondary school	5.8	6.1	5.7	4.1	2.3	4.3
Two-year post secondary school	0.4	0.2	1.9	2.6	4.0	2.8
University education	1.9	0.5	0.6	-	2.0	1.0
Total	8.6	8.3	6.2	4.9	5.6	7.8
<b><i>Education level, female</i></b>						
Unfinished primary school	20.4	19.2	9.7	10.6	8.2	11.7
Primary school	12.7	9.6	5.4	2.3	6.3	7.5
Secondary school	3.8	2.7	4.1	1.3	3.4	3.1
Two-year post secondary school	1.2	-	5.4	-	-	-
University education	1.4	-	5.1	4.7	-	-
Total	9.5	7.9	6.0	3.9	4.8	6.1

Source: RSO estimates based on the HBS data.

**Table 8.**

Distribution of population by decile consumption per equivalent scale unit, percent

	1 Decile			1 & 2 Deciles		
	2008 Q1-Q3	2008 Q4	2009 Q1-Q2	2008 Q1-Q3	2008 Q4	2009 Q1-Q2
<b>Education level</b>						
Unfinished primary school	16.9	19.6	25.3	16.5	18.0	21.4
Primary school	30.1	39.0	29.0	28.3	32.2	28.2
Secondary school	47.4	39.5	42.6	49.6	45.2	46.2
Two-year post secondary school	2.9	1.5	2.7	3.0	2.8	3.0
University education	2.7	0.4	0.4	2.6	1.8	1.3
<b>Economic activity</b>						
Self-employed	7.1	7.3	6.7	8.0	6.9	7.8
Employed in the private sector	16.5	22.1	13.3	18.1	24.4	15.5
Employed in the public sector	7.1	2.5	9.7	8.8	6.2	9.7
Unemployed	23.0	23.4	23.2	18.4	19.1	19.3
Retired	18.3	11.9	15.8	18.7	14.0	16.6
Person with receipts	1.5	1.2	1.2	1.2	1.1	1.1
<b>Urban/Non-urban areas</b>						
Urban areas	54.3	39.5	37.0	50.2	46.1	41.3
Non-urban areas	45.7	60.5	63.0	49.8	53.9	58.7
<b>Regions</b>						
Belgrade	9.1	20.2	15.4	13.3	21.0	15.3
Vojvodina	32.6	5.0	16.4	30.0	8.6	18.6
Central Serbia	58.3	74.8	68.2	56.7	70.4	66.1
<b>Gender</b>						
Male	53.3	50.4	52.9	52.0	52.5	51.9
Female	46.7	49.6	47.1	48.0	47.5	48.1
<b>Age cohort</b>						
0 – 6	7.8	7.6	7.6	6.9	6.3	5.9
7 -14	10.0	13.9	12.7	10.0	11.0	11.5
15 – 25	17.1	12.8	15.2	15.8	15.1	16.1
26 – 60	49.0	49.9	49.1	49.9	51.3	50.4
60+	16.1	15.8	15.4	17.4	16.3	16.1

Source: RSO estimates based on the HBS data.

## Coping strategies

**Table 9.**

Incidence of adoption of various coping strategies in 2009 (Q2), first/single answer - overall, by gender, by quintile

Coping strategy	All	Gender		Quintiles				
		M	F	1	2	3	4	5
Postponed mortgages	0.31	0.29	0.36	0.39	0.49	0.11	0.27	0.32
Postponed educational expenses	0.69	0.61	0.88	0.31	1.07	0.42	0.83	0.79
Postponed health expenses	6.65	6.18	7.87	8.05	7.13	7.21	5.50	5.67
Postponed other household expenses	43.47	43.22	44.11	43.66	44.81	45.54	42.10	41.36
Postponed investments in household's business	2.69	3.22	1.33	1.33	2.68	2.38	3.19	3.63
Postponed investments in household's farm	3.26	4.28	0.60	5.44	4.41	3.18	1.98	1.82
Had to sell a house	0.12	0.14	0.07	0.14	0.15	0.10	0.24	
Had to sell a car	0.65	0.78	0.31	0.75	0.08	0.54	1.17	0.69
Had to sell other household's assets	1.61	1.75	1.25	1.99	1.50	2.14	1.15	1.33
Had to use savings	13.87	14.05	13.41	11.91	12.30	14.50	16.44	13.66
Had to ask for a loan from a friend or relative in the country	6.29	5.34	8.76	10.31	8.21	5.54	4.10	4.30
Had to ask for assistance/support from a friend/relative from abroad	1.58	1.39	2.07	2.17	1.03	1.48	1.96	1.31
Had to ask for a loan from a person or institution	2.41	2.54	2.05	1.57	2.64	2.52	3.10	2.08
Postponed payment of credit card	2.30	2.53	1.70	0.60	1.95	1.86	4.29	2.47
Postponed payment of other credits/loans	0.74	0.60	1.10	0.83	0.78	0.55	0.53	1.00
Had to start an additional job	0.63	0.68	0.51	1.21	0.34	0.49	0.91	0.31
Had to return to a family farm/job in domestic production	0.29	0.41	-	0.70	0.22	0.18	0.37	0.07
Had to ask for social	0.46	0.23	1.06	1.31	0.61	0.15	0.29	0.13

assistance								
Other	10.04	9.57	11.24	5.13	6.63	9.23	10.07	17.74
Refuses to give an answer	1.93	2.17	1.31	2.21	2.96	1.87	1.49	1.30
Total	100	100	100	100	100	100	100	100

**Table 10.**

Incidence of adoption of various coping strategies in 2009 (Q2), by labor market status (percent)

<b>Coping strategy</b>	<b>Employed</b>	<b>Unemployed</b>	<b>Inactive</b>
Postponed mortgages	0.33	0.39	0.33
Postponed educational expenses	0.82	0.69	0.82
Postponed health expenses	4.77	4.29	6.73
Postponed other households expenses	42.02	47.46	45.31
Postponed investments in household's business	4.14	2.25	2.09
Postponed investments in household's farm	6.28	1.95	2.81
Had to sell a house	0.11	0.21	0.12
Had to sell a car	0.62	0.73	0.73
Had to sell other household's assets	1.74	1.27	1.80
Had to use savings	14.05	12.40	13.81
Had to ask for a loan from a friend or relative in the country	4.34	9.80	6.13
Had to ask for assistance/support from a friend/relative from abroad	1.34	1.81	1.43
Had to ask for a loan from a person or institution	2.80	3.03	2.53
Postponed payment of credit card	3.18	2.81	2.29
Postponed payment of other credits/loans	0.84	0.79	0.66
Had to start an additional job	0.61	1.35	0.67
Had to return to a family farm/job in domestic production	0.45	0.37	0.37
Had to ask for social assistance	0.08	0.37	0.43
Other	9.61	6.19	8.86
Refuses to give answer	1.85	1.83	2.09
Total	100	100	100

Source: RSO estimates based in the financial crises module added to the April 2009 LFS

**Table 11.**

Incidence of adoption of various coping strategies in 2009 (Q2)  
 – pensioners, public sector employees, informal sector workers (percent)

<b>Coping strategy</b>	<b>Pensioners</b>	<b>Public sector workers</b>	<b>Informal sector workers</b>
Postponed mortgages	0.26	0.42	0.29
Postponed educational expenses	0.56	1.20	0.42
Postponed health expenses	8.33	3.99	6.19
Postponed other households expenses	45.26	45.64	42.09
Postponed investments in household's business	1.92	2.91	3.19
Postponed investments in household's farm	3.11	2.52	12.86
Had to sell a house	0.07	0.22	0.22
Had to sell a car	0.37	0.57	0.25
Had to sell other household's assets	1.62	0.92	2.71
Had to use savings	13.54	15.24	13.33
Had to ask for a loan from a friend or relative in the country	5.39	3.79	4.63
Had to ask for assistance/support from a friend/relative from abroad	1.25	0.81	1.90
Had to ask for a loan from a person or institution	1.69	3.09	2.38
Postponed payment of credit card	1.73	4.65	0.12
Postponed payment of other credits/loans	0.77	1.00	0.40
Had to start an additional job	0.55	0.49	0.72
Had to return to a family farm/job in domestic production	0.48	0.25	0.41
Had to ask for social assistance	0.38	0.10	0.16
Other	10.77	11.21	5.91
Refuses to give answer	1.96	1.00	1.83
Total	100	100	100

Source: RSO estimates based in the financial crises module added to the April 2009 LFS

**Table 12.**

Incidence of adoption of various coping strategies in 2009 (Q2), other spontaneous answers - overall, by gender, by quintile

Coping strategy	All	Gender		Quintiles				
		M	F	1	2	3	4	5
Postponed mortgages	0.18	0.18	0.16	0.23	0.36		0.17	0.16
Postponed educational expenses	2.04	1.69	3.03	0.78	2.57	1.51	2.34	3.03
Postponed health expenses	13.15	11.69	17.24	15.61	15.15	14.42	11.51	9.31
Postponed other household expenses	27.68	27.67	27.72	28.99	26.21	29.37	27.37	26.24
Postponed investments in household's business	5.51	6.34	3.20	5.20	4.23	4.93	5.72	7.41
Postponed investments in household's farm	5.36	6.29	2.76	9.72	4.22	5.05	2.95	5.17
Had to sell a house	0.18	0.10	0.39				0.85	
Had to sell a car	1.19	1.40	0.62	0.37	0.75	0.95	2.87	0.91
Had to sell other household's assets	3.59	3.66	3.39	4.05	2.36	4.12	3.14	4.14
Had to use savings	20.88	21.81	18.26	16.63	17.93	21.64	23.17	24.29
Had to ask for a loan from a friend or relative in the country	11.20	10.46	13.28	12.21	14.71	11.46	9.45	8.58
Had to ask for a loan from a friend or relative from abroad	2.90	2.57	3.82	2.68	2.95	3.79	2.93	2.01
Had to ask for a loan from other person or institution	4.78	4.60	5.29	2.90	6.88	4.03	4.86	5.36
Postponed payment of credit card	5.70	5.38	6.59	2.44	5.91	4.93	7.28	7.78
Postponed payment of other credit/loan	4.07	3.90	4.53	2.23	3.38	2.57	6.68	5.40
Had to start an additional job	0.80	0.85	0.68	1.57	1.18	0.38	0.18	0.87
Had to return to a family farm/job in domestic production	0.76	0.85	0.54	0.70	1.77	0.30	0.61	0.58
Left school to find a job	0.18	0.25		0.27	0.33		0.16	0.19
Had to ask for social assistance	0.72	0.67	0.86	2.20	0.53	0.40	0.21	0.40
Other	2.69	2.50	3.21	1.54	3.18	2.15	3.41	3.18

Source: RSO estimates based in the financial crises module added to the April 2009 LFS

**Table 13.**

Incidence of adoption of various coping strategies in 2009 (Q2), assisted answers - overall, by gender, by quintile

Coping strategy	All	Gender		Quintiles				
		M	F	1	2	3	4	5
Postponed mortgages	0.12	0.16					0.55	
Postponed educational expenses	2.96	2.88	3.18	3.85	3.34	2.79	3.43	1.66
Postponed health expenses	13.28	12.34	16.00	14.17	12.09	14.21	14.18	11.67
Postponed other household expenses	18.39	19.06	16.45	20.33	17.98	14.60	21.05	18.51
Postponed investments in household's business	5.92	7.17	2.29	4.62	5.58	5.05	8.06	5.92
Postponed investments in household's farm	5.57	5.92	4.57	10.54	5.69	3.81	4.23	4.87
Had to sell a house	0.37	0.33	0.45	0.41		0.74	0.59	
Had to sell a car	1.21	1.41	0.65	1.35	0.96	0.45	1.53	1.80
Had to sell other household's assets	4.85	4.71	5.27	4.46	4.25	6.82	3.63	4.83
Had to use savings	18.97	20.32	15.06	18.84	16.99	21.46	17.57	19.49
Had to ask for a loan from a friend or relative in the country	15.01	14.69	15.95	17.07	23.78	13.39	12.89	10.19
Had to ask for a loan from a friend or relative from abroad	5.32	3.89	9.45	4.32	5.49	6.27	6.44	3.78
Had to ask for a loan from other person or institution	8.74	8.19	10.35	4.26	10.32	10.14	9.45	8.69
Postponed payment of credit card	9.49	8.69	11.81	3.49	7.90	12.26	12.26	9.64
Postponed payment of other credit/loan	7.28	7.13	7.71	4.56	10.15	5.48	6.04	10.17
Had to start an additional job	2.90	3.19	2.07	4.55	1.19	1.98	4.59	2.29
Had to return to a family farm/job in domestic production	1.53	1.80	0.75	1.23	0.95	1.24	1.96	2.10
Left school to find a job	0.34	0.34	0.35	0.28	0.95	0.38	0.21	
Had to ask for social assistance	2.42	2.27	2.85	6.57	2.59	1.30	1.01	1.72
Other	2.95	2.97	2.88	1.97	2.78	0.51	2.72	6.63

Source: RSO estimates based in the financial crises module added to the April 2009.

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