Employment Recovery in Europe and Central Asia

Johannes Koettl, Isil Oral and Indhira Santos

Key Messages

- Despite high unemployment in most Eastern Europe and Central Asia (ECA) countries, people have not withdrawn from the labor market but continue to actively look for jobs.
- Unemployment increased significantly in ECA countries during the crisis, particularly among youth. However, young people are also the ones benefiting most from the recovery.
- Labor market recovery remained sluggish up to the third quarter of 2010. Many countries have seen only a slight recovery in unemployment rates, although output is recovering everywhere.
- Up to the third quarter of 2010, the GDP upturn in most ECA countries appeared to be driven by increases in productivity and hours worked; however, these are still below pre-crisis levels. This suggests that there is room in most countries for further increases in productivity and hours worked, which could delay the recovery in employment.

Countries are Recovering from the Recession

Eastern Europe and Central Asia (ECA) is arguably the region most affected by the global financial crisis. While global GDP shrunk by about 2.2% in 2009 (first global GDP contraction since World War II), in ECA the average contraction that year was above 5%. With the exception of Albania, Belarus, Poland, and Tajikistan, all countries in ECA have experienced a contraction in GDP at some point since the second half of 2008 (Table 1).

Figure 1: Output is Recovering Everywhere (Albeit Unevenly)

Note: Relative recovery refers to the increase in GDP experienced during the recovery as a share of the decline in GDP experienced during the recession. Recession and recovery are country-specific. The data used refers to quarter-on-quarter growth rates and uses a common methodology comparable across countries. National data, especially if not seasonally adjusted, and year-on-year data might yield different results. A recession is defined as at least two consecutive quarters of real GDP decline.

Source: Authors’ calculations based on data from European Bank of Reconstruction and Development (EBRD, 2010).

In fact, most ECA countries experienced a recession (defined here as two or more consecutive quarters of real GDP declines). The Baltic countries experienced the largest shock to output (19-30% GDP decline). These countries also experienced the longest recessions (seven months compared to the ECA average of five months). In contrast, the Western Balkan and Central Asian economies experienced the smallest GDP contractions.

The economic recovery is advancing but at an uneven pace. Up to the third quarter of 2010, all countries, except Romania, had started to recover in terms of GDP. In most
countries, recovery started in the second and third quarters of 2009. In the Baltic countries, where the recession was the most severe, recovery started only in the first half of 2010. Partly due to this timing issue, the extent to which output has recovered varies across countries. Output recovery has been particularly strong in Kazakhstan, Moldova and Turkey which have all fully recovered from the recession (Figure 1). However, recovery has been weak in other countries—for example, Latvia and Lithuania have recovered just over one-tenth of the initial drop in GDP.

**Table 1: Timing, Duration and Intensity of Recession and Recovery**

<table>
<thead>
<tr>
<th>ECA Countries</th>
<th>Start of Recession</th>
<th>Start of GDP Recovery</th>
<th>Percentage Drop in GDP During Recession</th>
<th>Length of the Recession (Number of Quarters)</th>
<th>Length of the GDP Recovery (Number of Quarters) up to third quarter of 2010</th>
<th>GDP Recovery of 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CIS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Armenia ARM</td>
<td>Q4 2008</td>
<td>Q1 2010</td>
<td>30%</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belarus BLR</td>
<td>No recession</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kazakhstan KAZ</td>
<td>Q3 2008</td>
<td>Q2 2009</td>
<td>4%</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moldova MDA</td>
<td>Q3 2008</td>
<td>Q3 2009</td>
<td>10%</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Russian Fed. RUS</td>
<td>Q3 2008</td>
<td>Q3 2009</td>
<td>12%</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tajikistan TJK</td>
<td>No recession</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ukraine UKR</td>
<td>Q2 2008</td>
<td>Q2 2009</td>
<td>24%</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Western Balkans and Turkey</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Albania ALB</td>
<td>No recession</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Macedonia MKD</td>
<td>No recession</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serbia SRB</td>
<td>Q2 2008</td>
<td>Q2 2009</td>
<td>5%</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turkey TUR</td>
<td>Q2 2008</td>
<td>Q2 2009</td>
<td>15%</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>EU New Member States and Croatia</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bulgaria BGR</td>
<td>Q4 2008</td>
<td>Q2 2010</td>
<td>10%</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Croatia HRV</td>
<td>Q3 2008</td>
<td>Q2 2010</td>
<td>11%</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Czech Republic CZE</td>
<td>Q4 2008</td>
<td>Q3 2009</td>
<td>5%</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estonia EST</td>
<td>Q2 2008</td>
<td>Q4 2009</td>
<td>23%</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hungary HUN</td>
<td>Q2 2008</td>
<td>Q1 2010</td>
<td>9%</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latvia LAT</td>
<td>Q2 2008</td>
<td>Q1 2010</td>
<td>30%</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lithuania LTU</td>
<td>Q2 2008</td>
<td>Q2 2010</td>
<td>19%</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poland POL</td>
<td>No recession</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Romania ROM</td>
<td>Q3 2008</td>
<td></td>
<td>12%</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slovakia SVK</td>
<td>No recession</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slovenia SVN</td>
<td>Q4 2008</td>
<td>Q3 2009</td>
<td>11%</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Q = Quarter. The data used refers to quarter-on-quarter growth rates and uses a common methodology comparable across countries. National data, especially if not seasonally adjusted, and year-on-year data might yield different results. A recession is defined as at least two consecutive quarters of real GDP decline. Macedonia and Slovakia did see their GDP contract on some quarters during this period. Macedonia is a borderline case with GDP decline during Q4 2008 and Q1 2009, followed by three quarters of growth and another quarter of decline, but overall relative stagnant growth patterns. **Source:** EBRD.

Despite High Unemployment, People Have Not Withdrawn from Labor Markets

Labor force participation or activity rates (refers to those who have jobs or are actively looking for one) stayed fairly constant during the recession as well as the recovery period, not changing by more than 5% in any country between 2008 and 2010 (Figure 2). For the most part, changes have been small compared to historical trends. This is significant because it means that people have not given up looking for jobs but continue to actively search for employment. In several countries, however, changes in activity rates do
represent important departures from historical trends. In Turkey and Lithuania activity rates fell between 2000 and 2007 (by 9% and 6%, respectively); yet, during the crisis (2008-2010) activity rates actually increased (by 4.2% and 3.3%, respectively). At the other extreme are Latvia and Bulgaria where activity rates fell by 4% during the crisis, while from 2000-2007 they increased (by 8% and 0.4%, respectively).

In a few countries, changes in activity rates differed across gender. In Turkey and Lithuania, for instance, higher activity rates are being driven by an increase in the share of women joining the labor force, possibly to supplement household income in response to the crisis (14.2% in Turkey and 6.6% in Lithuania) - see Figure 3. The extent to which these changes are permanent is not clear yet, and little is known about the nature of these increases in participation (for example, women could have been increasingly employed as unpaid family workers in subsistence farming during the crisis). In other countries, the trends in activity rates did not differ by gender or were driven by changes in male activity rates, like in Latvia.

The Magnitude of the Employment Shock Varied Across ECA

ECA countries experienced large shocks in their labor markets. Labor markets were, in fact, the main channels through which the economic crisis was transmitted to households. While activity rates – includes the employed and the unemployed - have remained stable, employment fell significantly in most countries during the recession. This was especially the case in the Baltic countries, with employment falling by more than 10% during this period in Lithuania and Estonia and 18.3% in Latvia (Figure 4).

Only Kazakhstan and Turkey have seen increases in employment over the past three years. In Turkey, the increase in employment is mainly driven by increases in the number of women employed (16.8%), following increases in labor force participation. This suggests an important added-worker effect in Turkey where the recession led to more women taking up employment to supplement household income, often as unpaid family workers in agriculture.

With activity rates fairly constant and employment numbers depressed, unemployment rates spiked almost everywhere between early 2008 and the third quarter of 2010, increasing even in countries that did not experience a recession:

4 In Latvia, changes could have been driven by sectoral adjustments, like, for example, through large layoffs of male workers in the construction sector.
Albania (7%), Poland (31%) and Slovakia (44%). Among countries that experienced a recession, only Kazakhstan did not see an increase in unemployment rates. However, large variations were observed across countries in terms of the size of the unemployment shock, measured as the percent increase in the unemployment rate from early 2008 (first quarter) to its peak (Figure 5). The unemployment shock was especially large in the Baltic countries where the output shock was also the largest.

The governments in the region have been active in trying to limit the effects of the crisis on labor markets through a wide range of employment-related programs. Examples include wage subsidy programs in the Czech Republic, Estonia, Hungary, Latvia, Slovakia, and Ukraine, and support for short-time work in Bulgaria, Czech Republic, Hungary, Poland, Romania, and Slovenia.

However, despite these efforts, unemployment rates in ECA remain high (Figure 7). Unemployment rates are the highest in the Western Balkans, especially in Bosnia and Herzegovina (43.3%) and Macedonia (32.1%). On the other hand, (official) unemployment rates are the lowest in Belarus (0.4%), Tajikistan (4.4%), and Kazakhstan (5.8%). The Baltic countries, the most affected by the crisis, have now unemployment rates above the average for the region as a result of the shock.

There was also variation on how employment reacted to a given output shock. Figure 6 shows how changes in employment related to changes in GDP during the recession. It indicates that countries that experienced the largest shocks to output also experienced the largest relative declines in employment. However, in some countries, given the size of the output shock, the effects on labor markets were relatively small (above the regression line) - for instance, in Ukraine, Turkey and Romania. In other countries - Bulgaria, Moldova, Latvia and Lithuania - the effects on labor markets were larger. Policies may explain part of this variation in employment elasticity across countries.

Aside from crisis-related policies, of course, the structure of labor markets (including labor regulation issues) and the sectoral composition of GDP and employment are important determinants of the output elasticity of employment.

---

6 In Albania, this means an increase in unemployment rates from 12.6 to 13.6%; in Poland, from 7.2 to 9.4%; and in Slovakia, from 9.9 to 14.3%.

Unemployment Is Particularly High Among Youth

The unemployment shock was very large for youth. The unemployment rate among the population aged 15-24 was already 2.5 times higher than that for adults in ECA before the crisis, but the recession led to a further surge in unemployment among youth. Between 2007 and 2009, the unemployment rate among youth more than tripled in Latvia and Lithuania, more than doubled in Estonia, and increased by more than 50% in the Czech Republic. Contrast these figures with an average change in the youth unemployment rate of 7.4% worldwide over the same period.

Youth, in fact, was disproportionately affected by the crisis. The large increase in youth unemployment in ECA was not only the result of an overall increase in unemployment; unemployment rates increased relatively more for youth than for the rest of the population in ECA (Figure 8) and these differences were especially dramatic in the Czech Republic and Slovakia. The younger segments of the work force often have more flexible labor contracts and less experience, making it likely that they are the first ones to lose their jobs during economic downturns. However, this flexibility can also mean that they are the first ones to be rehired as the economy recovers.

Figure 8: Young People (Aged 15-24) Were Disproportionately Affected by the Crisis

Note: Kazakhstan, Macedonia, and Serbia – not depicted in the graph - are three countries where the ratio of youth to adult unemployment also worsened during this period.

Source: Authors’ calculations based on ILO (2011).

Up to the Third Quarter of 2010, Employment Had Started to Recover, But Only in Some Countries

Employment growth has been particularly strong in Turkey and Kazakhstan during the recovery (Figure 9) - the only two countries that have seen net employment gains overall in the past three years.

However, in the Baltic countries, Bulgaria, Croatia, Moldova, and Slovenia, employment continued to fall even as output started to recover (Figure 9). With the exception of Kazakhstan and Turkey, up to the third quarter of 2010, those countries that have seen the largest improvements in GDP have actually seen the smallest improvements in employment (Figure 10).

Figure 9: During the Recovery, Employment Has Continued to Fall in Many Countries

Figure 10: So Far, Countries with the Largest Increases in GDP during Recovery Have Seen the Smallest Improvements in Employment

Note: Time periods differ from country to country, depending on when the recovery started.

Source: Authors’ calculations based on EBRD (2011) and ILO (2011).

Similarly, up to the third quarter of 2010, unemployment rates were yet to recover in the same way as output. This is the case even for countries that had fully recovered from the output shock (Moldova, Turkey). Overall, Turkey, Ukraine and Russia are the three countries that had been able to reduce unemployment rates the most relative to the initial shock experienced. But even these countries had only recovered less than 60% of the initial increase in
unemployment rates by late 2010. Many countries had seen no recovery at all or only a slight recovery in unemployment rates. This is the case for Armenia, Bulgaria, Croatia and Lithuania. Others have experienced reductions in unemployment rates of less than 10% of the increases experienced during the crisis: Serbia (1%), Hungary (3%), Slovenia (4%), Romania (9%) and Slovakia (9%). Interestingly, only Ukraine, Latvia, and Romania had labor markets that experienced a stronger recovery than that seen in output in the period covered in this Brief (above the 45 degree line in Figure 11). This is consistent with employment trends, which suggest that up to the third quarter of 2010, the economic recovery had not been accompanied by a recovery on the extensive margin - that is, in employment levels of firms.

Some of the hardest hit groups, like youth, are also the ones benefiting the most from the recovery. While young people saw the largest relative increases in unemployment during the crisis, they had also experienced the strongest recovery up to the third quarter of 2010. It is only in Turkey, Romania, the Czech Republic, and Slovakia that recovery has been relatively weaker among youth in terms of declines in unemployment rates (Figure 12).

Recovery, in terms of employment and unemployment, takes time. The nature of the recent recession - economic slowdown combined with a financial crisis, high level of financial stress for individual households and governments, and high uncertainty - means that the private sector may take some time to rehire workers even as production starts to pick up. In fact, in ECA, unemployment rates peaked in most countries several quarters after the GDP started to recover (Figure 13). For those countries where unemployment rates had started to recover by the third quarter of 2010, it had taken, on average, an additional two quarters for unemployment rates to fall after GDP had started to rise.9

9 This average does not include Romania, where the unemployment rate peaked before GDP started to recover.

Figure 11: Recovery in Unemployment Rates Has Been Slower Than That in Output

Note: GDP recovery is measured from its trough, unemployment rate recovery is measured from its peak between Q1 2008 and Q3 2010. Source: Authors’ calculations based on EBRD (2011) and ILO (2011).

Figure 12: In the Recovery, Youth Unemployment Rates Are Falling Faster Than for the Rest of the Workforce

Note: * denotes that unemployment rates had not started to decline by Q3 2010. Source: Authors’ calculations based on ILO (2011).

Figure 13: There Is A Time Lag between the Start of GDP Recovery and Unemployment Rate Recovery

Note: * denotes that unemployment rates had not started to decline by Q3 2010. Source: Authors’ calculations based on EBRD (2011) and ILO (2011).
Lags are longer in the case of financial crises, suggesting that in those countries where the nature of the crisis had an important finance component—like in the Baltics—the recovery may be slower (Figure 14). Employment usually lags behind output because firms wait to see if a recovery is permanent before committing to hiring new people. This could especially be the case in this recession, where the number of hours worked fell significantly in many countries, which suggests that there is potential to adjust on the intensive margin before hiring new workers.

**Figure 14: How Long Does It Usually Take for Labor Markets to Recover?**

![Graph showing the median number of quarters before employment (unemployment) reaches its trough (peak) after the end of the recession.](source: IMF (2010)).

**Up to the Third Quarter of 2010, Recovery Had Been Driven by Productivity**

The evidence indicates that output recovery has been driven by improvements in labor productivity rather than increases in employment. In particular, GDP recovery has been accompanied by increases in average output per worker. Figure 15 shows that after falls in average output per worker across the board during the recession, average labor productivity in all countries was higher in Q3 2010 than at the end of the recession (when GDP hit its lowest level in each country). Average labor productivity increased by almost 15% in Moldova and by more than 8% in Estonia and Turkey. This indicates a “V-shaped” behavior in output per worker. In a number of countries, output per worker still has significant room to recover compared to its level at the start of the recession.

**Figure 15: So Far, Recovery Is Driven by Increases in Average Output per Worker Rather Than by Hiring of New Workers**

![Graph showing average output per worker (index).](source: Authors’ calculations based on ILO (2011) and UN (2009)).

This also indicates that during the economic recovery, firms may be adjusting on the intensive margin—that is, by increasing the number of hours worked per employee rather than by hiring new workers. This would be a mirror strategy of the one largely followed during the recession where many firms cut the number of hours worked before instead of laying off workers. In fact, by the third quarter of 2010, the number of hours worked had increased in Estonia, Hungary, Latvia, Lithuania, Macedonia, and Slovenia (Figure 16). Again, as with output per worker, all countries are still well below the number of hours worked before the recession, signaling that there is still significant adjustment to be done on the intensive margin.

**Figure 16: In Some Countries, Increases in Output per Worker Are Driven by Increases in Hours Worked**

![Graph showing average hours worked (index).](source: Authors’ calculations based on Eurostat (2011)).

Together with productivity, wages are rising in most countries. In countries where average output per worker is increasing but hours and employment are not, actual labor productivity (output per hour) should be rising and this should be reflected in higher wages. Figure 17 shows that by the third quarter of 2010, wages have started to pick up in all

---

countries, except in Croatia and the Baltic countries. For the latter, the decreases are the result of an explicit policy of internal devaluation. Timing, duration, and intensity of the recession and recovery were also different in these countries, with Croatia, Latvia, and Lithuania still in recession in the first quarter of 2010 and Estonia in recession until the end of 2009.

Countries like Turkey, where the recession ended early on, have had more time to recover and for labor market indicators to improve. What we see instead for most countries are adjustments on the intensive side. There is a recovery in terms of average labor productivity (measured as output per worker), in some countries it is driven by an increase in hours worked (a reversal of the reduction in hours worked that took place during the recession), and in others by actual increases in productivity. The question that still remains, however, is: How long will the recovery of employment and unemployment take and has the crisis had some structural effects that may delay the recovery more than usual?

In Conclusion, Are Labor Markets Recovering?

Countries in ECA have started to recover from the output shock associated with the financial and economic crises; however, the recovery in labor markets on the extensive margin - in terms of increased employment and decreased unemployment - has been sluggish, at least up to the third quarter of 2010. While people have remained in the labor force, employment is still lower and unemployment is still higher than before the recession. In part, this lag is not unusual as recovery in employment and unemployment lags output recovery by around a year.

In some of these countries, the increase is partly due to increases in public sector wages.