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Labour markets in the Baltic States during the crisis 2008–2009: the effect on different labour market groups

Jaan Masso, Kerly Krillo*

Abstract

The economies of the Baltic States have been among the most severely affected by the global economic crisis that started in 2008. This study focuses on the impact of the crisis on the labour markets of the Baltic States with particular emphasis on how the impact varies across different labour market segments. Labour input has been decreased primarily through external adjustment (employment cuts), though part-time employment has emerged as well; wages have been flexible downward throughout the different parts of the economy. Adjustments can be seen both in the private and public sectors (the latter especially in Latvia). At the level of individual companies, quite different adjustment strategies can be seen. Similar to other European countries, males have suffered especially, but also youth and Estonia's and Latvia's substantial non-native (Russian-speaking) populations. Wage inequality has somewhat increased and that seems to be primarily due to the increasing premium for education and differences in wage reductions across sectors and firms. During the crisis, expenditures on both passive

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and active measures have grown significantly, also thanks to the use of EU funds.

JEL Classification: E32, J21, J31, J63, O5

Keywords: labour market; economic crisis; employment dynamics; wage differentials; Baltic States.

1. INTRODUCTION

The economic crisis hit the Baltic States particularly hard and the annual GDP decline exceeds even the figures seen during the beginning of the transition (see Table 1). There are several causes for this. During the years preceding the crisis (2004–2007), all three countries experienced the highest growth in the European Union: the average growth rate was 8.2% in Lithuania, 8.5 % in Estonia and 10.3% in Latvia. However, there were serious imbalances behind the growth that made it unsustainable. The wage growth exceeded productivity growth causing the loss of competitiveness in the open sector (especially in certain branches of manufacturing; see e.g. Estonian Development Fund 2008). Facing such conditions, companies oriented themselves towards domestic markets where the demand was fuelled by cheap credits. However, for small open economies like the Baltic States, exports should be the engine of growth.

Table 1. Main macroeconomic and labour market indicators for the Baltic States in 2009

Indicator	Estonia	Latvia	Lithuania	EU-25
GDP, % change	-14.1	-18.0	-14.8	-4.1
Industrial production, % change	-25.9	-15.8	-14.6	-14.5
Exports, % change	-24%	-22%	-22%	-19%
Employment, % change	-10%	-13.6%	-6.9%	-1.8%
Unemployment rate (LFS)	5.5 => 13.8	7.5 => 17.1	5.8 => 13.7	7.5 => 9.4
Vacancy rate*	2.5 => 0.9	1 => 0.3	1.7 => 0.5	2 => 1.4
Nominal wages, % change	-4.6	-4.0	-4.4	N.A.
Average working hours, % change	-2.0	-2.0	-1.3	-0.5%
Budget deficit/GDP	-1.7	-9	-8.9	-6.8
Government debt/GDP*	4.6 => 7.2	19.5 => 36.1	15.6 => 29.0	62.3 => 74.3

Source: Eurostat, national statistical offices of Baltic States
Notes: * change in annual average value from 2008 to 2009

The large current account deficit (occasionally more than 20% of GDP; e.g. in Latvia for 2006–2007 approx. 22%) was to a large extent financed by inflow of credits, thus external imbalances were no longer possible to maintain when the crisis started. While easy access to

credit and low interest rates for 2003–2007 helped to fuel economic growth, in 2008 and 2009 bank lending contracted significantly due to the banks' decreased risk appetite and fear of credit losses.

Economic growth slowed in the Baltic States earlier than in the rest of Europe: Estonia and Latvia already faced strong negative growth (-3.6% and -4.6%) in 2008. On the positive side, the financial institutions in the Baltic States had lower exposure to toxic US financial assets and the fact that the largest banks were owned by Scandinavian banks brought stability to the financial system in the Baltic States.

The crisis has also been exacerbated by the use of fixed exchange rates by all 3 countries; Estonia and Lithuania have linked their currency to the euro, Latvia to the Special Drawing Rights. Although in the beginning of the crisis, devaluation was discussed as a possible adjustment mechanism, all countries have kept fixed exchange rates while the currencies of many trading partners have lost value (incl. Sweden, Norway, Russia, Poland). One of the main arguments for keeping the fixed exchange rate has been the large loan burden denominated in euros in the household sector.

All three Baltic countries are rather small open economies with foreign trade amounting to more than 100% of GDP, and the high export dependency also explains some of the strong impact of the crisis (generally small open economies have reacted more strongly to the crises). Fiscal policy has not been able to balance this effect. Although there are automatic fiscal stabilizers like unemployment insurance in place and initial levels of public debt were rather low, the countries' ability to finance budget deficits has been limited. The credit ratings for sovereign debt dropped and at the end of 2008 and beginning of 2009 especially Latvia and Lithuania had limited access to sovereign debt. Latvia even had to apply for a loan from the IMF to finance government expenditures. Ambition to join the Eurozone in 2010 has motivated Estonia to keep the budget deficit below the Maastricht criterion (3% of GDP). In some sense, fiscal policy has

actually been pro-cyclical; for example, in Estonia there were tax cuts during 2006–2007 and tax increases in 2009 (OECD 2009)[1].

This study provides an overview of the effects of the crisis on the labour markets of the Baltic States and how this contributed to inequalities in the work environment. Despite some differences, these three countries form a rather homogenous group with similar institutions, overall levels of economic development and previous development paths[2]. Labour markets in the Baltic States have had one of the highest levels of wage inequalities in EU countries (the value of the 90th/10th wage decile ratio exceeded 4.5 some years; Employment in Europe, 2005). That is in part a result of the institutional setting of the labour market characterized by low minimum wages, a low density of unions and a low coverage of collective agreements (Masso and Krillo, 2008). In such conditions, the wage gaps between particular labour market groups can also be considerable. For instance, earlier studies have documented a large wage gap between genders (see Rõõm and Kallaste, 2004), between Estonians and non-Estonians (Leping and Toomet, 2008) and between part-time and full-time employees (Masso and Krillo 2010). The Baltic States have also been characterized by rather high labour market flexibility (Masso and Eamets 2007), similar low union density and coverage of collective agreements, modest expenditure on passive labour market policies and flexible wages (there were wage cuts during the previous recession in 1999). Although employment protection legislation (EPL) has been relatively strict, the issue is more complicated and the low enforcement of the legislation seems to undermine the importance of a strict EPL (Eamets and Masso 2005). Under such conditions it is interesting to study how different labour market segments have been influenced by the crisis.

[1] For the analysis of macroeconomic developments of the Baltics and the experienced boom-bust cycle see also Brixiova et al. (2009) and Purfield and Rosenberg (2010).

[2] For an overview of the past developments of the Baltic States' labour markets see e.g. Paas and Eamets (2006).

2. INEQUALITIES IN THE ADJUSTMENT THROUGH EMPLOYMENT

The current economic developments have severely influenced the unemployment rates in all three Baltic States (see Figure 1). Due to intensive economic growth and migration (see Randveer, Rõõm 2009 for Estonian experience) unemployment decreased substantially in all three Baltic States in the mid-2000s, and until the beginning of the recession unemployment rates were below the EL-27 average. The unemployment rates fell to levels that were not seen since regaining independence. This period of labour shortages in all three Baltic States was reflected in the considerable increase in wages (see subsection on wages).

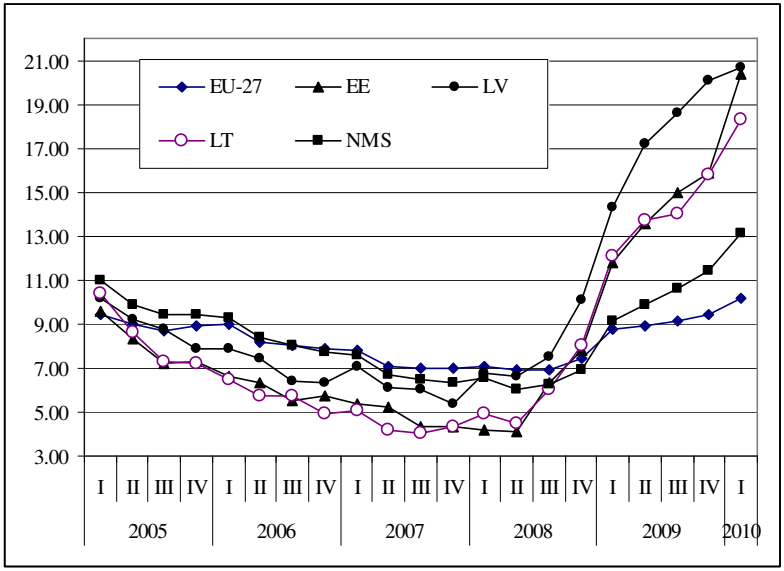

Figure 1. The unemployment rates for 16–64 years in EU-27, NMS, Estonia, Latvia and Lithuania for 2005–2010

Source: Eurostat

Note. The average for new member states has been calculated as the unweighted average of new CEE member states.

The economic crisis hit the Baltic States quickly and painfully. The unemployment rate rose more rapidly in Latvia (to almost 20% at the end of 2009) compared to Estonia and Lithuania (about 15.5%) reflecting that the decline in GDP was greatest there. Compared to the end of 2007, unemployment rates were almost 4 times higher in all three Baltic States at the end of 2009. While in many Western European countries, the current crisis has been characterized by a smaller decline in employment compared to the drop in GDP (in EU15 in 2009 GDP declined 4.2%, but employment only 1.8%), in Estonia and Latvia these two especially follow each other quite closely (employment dropping by 71% in Estonia and 76% in Latvia of the drop in GDP). In Lithuania employment has dropped relatively little compared to GDP (only 47%). While the rather strong growth in unemployment in response to the recession has been possible due to high labour market flexibility, the other side of the story is that such a drop in GDP cannot be adjusted without adjustments in employment. Unemployment has been a short-term phenomenon until 2010. Nevertheless, it is almost inevitable that the percentage of long-term unemployed will increase in 2010, although the number of registered unemployed has somewhat decreased. Thus, while in most new member countries unemployment rates did not achieve the maximum levels attained at the beginning of 2000s, in the Baltic States that has occurred.

Job losses have not been uniform in different economic sectors (Table 2). Developments in the construction sector have been particularly remarkable – during the boom years the sector was the biggest job creator (related to the boom in the real estate market fuelled by the supply of credit), and during the recession the decline in employment has been tremendous. It is sure that most of these jobs will not be created again in the near future. The manufacturing sector has also seen major employment decline. Public sector employment has only decreased significantly in Latvia, and as the recession has been deepest there, it was not possible to make the necessary adjustments in the public sector only through cuts in wages and working hours. In Lithuania, growing employment in the primary sector is noticeable (probably to some extent also related to subsistence farming). Most of the employment adjustment already occurred at a relatively early

phase of the crisis. In Estonia, statistics on collective dismissals[3] indicates that the number of applications for collective termination of employment started to increase at the end of 2007; for a year (4th quarter 2007 – 3rd quarter 2008) the increase was quite stable and rather modest, but in the last quarter of 2008 the increase in the number of applications as well as the number of employees related to the applications was tremendous – more than three times compared to the previous quarter. The peak was in 1st quarter 2009 and figures already started to decrease in the 2nd quarter.

[3] In Estonia, firms need to submit applications for collective dismissals to the Labour Inspectorate. According to the Law of Employment Contracts, these were defined as follows: during 30 calendar days, the employment contract terminated within 30 calendar days, where at least a) 5 employees in an enterprise employing up to 19 employees, b) 10 employees in an enterprise employing 20-99 employees, c) 10% of employees in an enterprise employing 100-299 employees; and d) 30 employees in an enterprise employing at least 300 employees.

Table 2. Changes in employment during boom (2005-2007) and recession (2008-2009) as a percentage by sectors in the Baltic States

	Employment change, 2005–2007, %			**Employment change, 2008–2009, %**			**Percentage of total job loss in 2009**		
Sector	**EE**	**LV**	**LT**	**EE**	**LV**	**LT**	**EE**	**LV**	**LT**
Total economy	7.9%	8.0%	4.1%	-9.2%	-12.2%	-6.8%	100.0 %	100.0%	100.0%
Primary sector	-3.2%	-11.9%	-22.9%	-5.1%	-0.4%	8.9%	2.1%	0.3%	-10.3%
Industry	-5.6%	7.2%	1.0%	-14.0%	-21.0%	-13.3%	34.9%	29.8%	38.3%
Construction	68.2%	38.8%	29.0%	-28.0%	-39.7%	-26.4%	37.4%	36.2%	42.2%
Business services	7.3%	19.1%	15.1%	-6.3%	-8.1%	-4.9%	23.1%	24.7%	25.9%
Public services	5.8%	-6.4%	0.1%	-0.9%	-4.3%	-1.1%	2.6%	9.2%	3.9%

Source: national statistical offices

Labour market developments have influenced different labour market segments differently in the Baltic States (see Table 3). The recession has clearly hit the employment of males more than females: as a result of the economic recession, several sectors like manufacturing and construction, where mostly males were employed, have shrunk considerably. There are "female-occupied" sectors that have also been influenced by the economic cooling off, such as accommodation and food service activities, but these sectors have a considerably lower density of employees.

Compared to national majorities (Estonians, Latvians, Lithuanians), minorities (in the Baltic States, mostly Russian-speaking) have constantly been worse off (in terms of both wages and the ability to find employment) in the Estonian and Latvian labour market, and during the crisis their unemployment rate increased more than the unemployment rate for national majorities. Thus, the existing disparities have even increased during the crisis, probably due to poor language skills and the ethnic segregation of the work force by economic sectors. Although there is no data available for the unemployment rate for foreigners in Lithuania, since the share of minorities in the population is lower, it is likely that the effects are somewhat smaller than in Estonia and Latvia.

During the whole period since regaining independence, the high unemployment among youth has been one of the main challenges facing labour policy makers in the Baltics. Compared to other age groups, youth (age 15-24) were more severely influenced both by the economic boom and the recession. Thus, this represents one of the buffers that absorbed the labour shortage during the boom years and the employment reduction during the crisis; still, even during the economic boom unemployment was highest among the youth. Entry to the labour market for the relatively large cohorts born at the end of the 80s and the very beginning of the 90s has also contributed to high unemployment among youth.

Table 3. Unemployment rates for different labour market groups in the Baltic States

Labour market group	2005	2007	2008	2009	Percentage points change, 2005-2007	Percentage points change, 2008-2009
Estonia						
Total	8.1	4.8	5.6	14.1	-3.3	8.5
Men	9.0	5.5	5.9	17.4	-3.5	11.5
Women	7.2	4.0	5.4	10.8	-3.2	5.4
15-24	15.9	10.0	12.0	27.5	-5.9	15.5
25-49	7.5	4.3	4.7	13.0	-3.2	8.3
50-69	5.9	3.3	4.5	10.5	-2.6	6.0
Estonian	5.3	3.5	4.2	11.0	-1.7	6.9
Non-Estonians	13.0	6.9	8.2	19.0	-6.1	10.7
Latvia						
Men and women	8.8	6.2	7.8	17.3	-2.6	9.5
Men	9.1	6.6	8.4	20.4	-2.5	12.0
Women	8.5	5.8	7.2	14.1	-2.7	6.9
Nationals	8.9	4	4.6	12.1	-4.9	7.5
Foreigners	NA	NA	11.1	23.5		12.4
15-24	15.7	8.2	13.4	29.2	-7.5	15.8
25-49	8.4	4.4	5.9	13.9	-4.0	8.0
50-74	7.8	3.7	5.1	10.8	-4.1	5.7
Lithuania						
Men and women	8.3	4.3	5.8	13.7	-4.0	7.9
Men	8.2	4.3	6.0	17.0	-3.9	11.0
Women	8.3	4.3	5.6	10.4	-4.0	4.8
15-24	15.7	8.2	13.4	29.2	-7.5	15.8
25-49	7.8	4.0	5.1	12.5	-3.8	7.4
50-74	6.8	3.8	4.4	10.4	-3.0	6.0
Share of long-term unemployment, all						
Estonia	53.4	49.2	30.1	27.4	-4.2	-2.7
Latvia	45.9	26.3	25.7	26.7	-19.6	1.0
Lithuania	52.5	32.0	21.1	23.2	-20.5	2.1
EU-27	46.3	42.7	37.0	33.2	-3.6	-3.9

Source: Eurostat, national statistical offices

Concerning atypical forms of employment (work other than regular full-time employment), temporary employment is not widespread in the Baltic States. While in the EU on average about 13–15% of employees are employed on a temporary basis and in the New Member States the incidence of temporary work is even higher, in the Baltic States the use of temporary contracts constituted 2–3% of the total number of employees in 2008. In Estonia and Latvia the frequency of temporary contracts shows a contra-cyclical trend; for example, it decreased during 2005–2008 (in Latvia from 8.5 to 3.3%, in Estonia from 2.7 to 2.4%), but has increased during the crisis (in the 1st half of 2010, 6.2% in Latvia and 3.6% in Estonia). While the new law on employment contracts in Estonia introduced in the middle of 2009 liberalized the use of fixed term contracts, the other reason for the increasing share of temporary contracts is that due to increasing demand uncertainties during the crisis, firms desire more flexibility and thus hire new employees on a temporary basis. Similarly, the self-employment rate has been lower in the Baltics than in the EU15, and decreased during 2008–2010: in Estonia from 5.3 to 3.9%, in Latvia from 5.3 to 5.1%, in Lithuania from 7.7 to 4.6% (which is interesting given the increase in employment in the primary sector). There could also be entrants into self-employment if people previously engaged in salaried employment are forced to start their own business in order make a living; the Global Entrepreneurship Monitor has indicated that is the case for Latvia (Bosma, Levie 2010). Another form of flexible employment, temporary agency work, is a relatively new and small sector in Estonia that had about 2,800 temporary agency workers in 2007 (Temporary Agency Work Survey, 2007). Temporary agency work was used in cases of labour shortages or the need for additional staff during the period of economic growth. Thus, it is highly likely that that sector has shrunk considerably, although the statistics on that are not available.

One advantage of the Estonian LFS is that it includes detailed information on the various reasons why employment contracts have been terminated. As shown in Table 4, relative to 2008, involuntary redundancies (due to personnel cuts, enterprise closures, termination of self-employment) have clearly become more important and grown in absolute numbers. However, there is anecdotal evidence that employers are trying to achieve the termination of employment contracts by means other than redundancies in order to avoid

severance payments. Maternity leave has become less important. There is anecdotal evidence that females have opted to use the period of the crisis for child birth in order to make use of Estonia's rather generous system of paid parental leave (up to 435 days, the maximum monthly benefit being EUR 2260).

Table 4. Reasons for the termination of employment contracts, Estonia, 2006-2009

	Percent of all terminations			Percentage change in total number, 2008-2009
Reason	**2007**	**2008**	**2009**	
1. Enterprise closures	6.9%	5.9%	10.3%	194%
2. Reorganization of the enterprise	2.2%	1.2%	0.9%	22%
3. Dismissal initiated by the employer	7.6%	7.4%	7.0%	60%
4. Personnel cuts	9.2%	11.3%	26.7%	300%
5. Expiration of fixed-term contract or probation period	7.8%	7.5%	5.1%	16%
6. Termination of self-employment or farming	0.2%	1.3%	2.3%	190%
7. Military service	1.2%	0.5%	1.1%	239%
8. Illness or injury	19.1%	16.4%	11.2%	16%
9. Studies	0.9%	2.2%	0.9%	-28%
10. Retirement at pension age	18.4%	19.0%	9.8%	-12%
11. Early retirement	4.2%	2.9%	2.8%	64%
12. Maternity leave	8.8%	14.4%	10.5%	24%
13. Need to take care of children or adults	1.5%	0.8%	1.4%	183%
14. Other personal reasons	5.7%	4.8%	4.2%	51%
15. Other work-related reasons	5.5%	4.2%	5.6%	125%

Source: authors' calculations based on Estonian LFS

Table 5 presents the indicators for various labour market flows. We denote the three labour market states employment, unemployment and inactivity respectively as E, U and I, then over a given period, for instance, EU denotes movement from employment to unemployment. We also use EE to denote constant employment with the same employer and Ee job-to-job mobility. Hiring and separation rates (respectively HR and SR) can be thus defined as follows (Haltiwanger and Vodopivec 1999).

Table 5. Flows between labour market states in Estonia, 2008-2010

Group	Year	EE	Ee	EI	EU	UU	UE	UI	Hiring	Separation
Males	2008	91.9%	8.0%	5.8%	2.2%	30.0%	43.2%	26.8%	15.7%	16.1%
	2009	82.5%	8.2%	7.6%	9.9%	42.1%	45.4%	12.5%	14.7%	25.7%
	2010	76.7%	8.3%	8.9%	14.3%	64.0%	18.3%	17.7%	16.4%	31.5%
Females	2008	89.4%	6.9%	8.5%	2.0%	23.5%	58.5%	18.0%	18.2%	17.5%
	2009	83.6%	6.0%	11.2%	5.1%	30.0%	45.6%	24.4%	17.9%	22.4%
	2010	82.3%	4.7%	10.7%	7.0%	41.8%	36.4%	21.9%	16.2%	22.4%
Estonians	2008	90.2%	7.0%	8.0%	1.8%	24.1%	50.4%	25.4%	17.3%	16.8%
	2009	83.2%	7.1%	10.3%	6.5%	29.2%	51.0%	19.8%	16.3%	23.9%
	2010	82.6%	7.3%	10.0%	7.4%	50.8%	26.8%	22.5%	17.3%	24.7%
Non-Estonians	2008	91.8%	8.5%	5.2%	2.9%	31.6%	49.4%	19.1%	16.2%	16.7%
	2009	82.8%	7.1%	7.2%	10.0%	46.7%	38.9%	14.4%	16.2%	24.3%
	2010	73.3%	4.2%	9.6%	17.2%	60.4%	24.2%	15.4%	14.0%	30.9%
All	2008	90.7%	7.5%	7.2%	2.1%	27.4%	49.8%	22.9%	17.0%	16.8%
	2009	83.1%	7.1%	9.4%	7.5%	36.8%	45.7%	17.6%	16.2%	24.0%
	2010	79.8%	6.3%	9.9%	10.3%	54.9%	25.7%	19.4%	16.3%	26.6%

Source: own calculations based on Estonian LFS; 2010 includes only the first quarter.

As we can see, the separation rate increased from 17 to 27%, while the hiring rate decreased only slightly. That is different from, for example, Hungary where the employment adjustment occurred mostly through reduced hiring while separations did not change much (Köllo 2010). The separation rates have increased relatively more for males and non-Estonians. The prospects for moving from unemployment to employment have clearly worsened, thus showing that long-term unemployment is a growing problem. The flows to inactivity have grown only slightly; still this is likely to increase in the near future if high unemployment persists. The rates of job-to-job mobility have decreased especially for some groups of people (females, non-Estonians). The quarterly data shows that while 7–9% of employees changed their work place within the year for 2006–2007, that number increased to 11.8% at the end of 2008, but later dropped to 5% in the 3rd quarter of 2009. That may indicate that while people dismissed in 2008 could still find employment with another employer, in 2009 they remained unemployed. The recession may have also discouraged voluntary moves, in other words, people choose to stay with their current employer even though they may be dissatisfied with the job. That may result in decreased job quality. Svejnar and Semerak (2009) argue that the crisis seems to have increased geographical labour mobility in new member states; for example, people are more willing to commute or relocate to places with better employment opportunities.

Table 6 presents data on job creation (JC) and destruction (JD) rates (see e.g. Davis and Haltiwanger 1999). More formally,

$$(1)\quad JC_t = \sum_i \Delta N_{it}^{+} \Big/ \sum_i N_{it-1}\,,\; JD_t = \sum_i \Delta N_{it}^{-} \Big/ \sum_i N_{it-1}\,,$$

where N denotes employment at firm i in year t, the superscript '+' ('–') refers to a positive (negative) change in employment. The sum of jobs created or destroyed is divided by employment in *t-1*.

Table 6. Job creation and job destruction rates in Estonia during the crisis

	Job creation			Job destruction			Net change		
	2005-7	**2008**	**2009**	**2005-7**	**2008**	**2009**	**2005-7**	**2008**	**2009**
Sector									
Primary sector	7.9%	8.1%	5.9%	11.0%	11.3%	14.7%	-3.1%	-3.2%	-8.8%
Industry	9.8%	5.6%	4.8%	9.0%	14.1%	20.0%	0.7%	-8.5%	-15.2%
Construction	23.3%	10.6%	5.4%	10.5%	20.9%	27.6%	12.8%	-10.3%	-22.2%
Business services	17.6%	11.5%	8.7%	9.2%	15.7%	18.5%	8.4%	-4.2%	-9.8%
Public services	12.0%	9.3%	4.5%	7.5%	9.0%	19.0%	4.5%	0.4%	-14.5%
Region									
Northern Estonia	16.9%	9.9%	8.8%	9.3%	15.5%	19.4%	7.6%	-5.6%	-10.6%
Central Estonia	11.4%	8.7%	4.9%	8.9%	14.0%	17.3%	2.5%	-5.2%	-12.4%
North-Eastern Estonia	8.6%	7.6%	4.3%	8.3%	15.4%	24.7%	0.4%	-7.8%	-20.3%
Western Estonia	14.3%	8.5%	6.3%	10.0%	14.7%	21.9%	4.4%	-6.3%	-15.6%
Southern Estonia	14.6%	9.2%	7.0%	9.3%	15.1%	20.1%	5.3%	-5.9%	-13.1%
Ownership									
State	3.0%	3.3%	0.7%	4.7%	2.3%	7.4%	-1.7%	1.0%	-6.7%
Domestic private	15.1%	9.7%	7.1%	9.9%	15.6%	20.7%	5.2%	-5.9%	-13.6%
Foreign	16.1%	9.7%	7.0%	7.4%	17.5%	18.8%	8.8%	-7.8%	-11.8%
Firm size									
0	23.4%	15.3%	10.9%	16.5%	23.5%	28.2%	6.9%	-8.2%	-17.3%
1-9	16.2%	11.0%	7.0%	10.5%	15.8%	20.2%	5.7%	-4.8%	-13.2%

	Job creation			Job destruction			Net change		
	2005-7	**2008**	**2009**	**2005-7**	**2008**	**2009**	**2005-7**	**2008**	**2009**
10-19	14.5%	9.0%	5.7%	8.1%	13.7%	20.2%	6.5%	-4.6%	-14.5%
20-49	12.9%	8.6%	4.5%	7.3%	13.1%	18.3%	5.5%	-4.5%	-13.8%
50-99	11.1%	6.8%	4.6%	5.1%	9.5%	14.6%	6.0%	-2.7%	-9.9%
100-249	11.2%	7.0%	6.9%	8.0%	11.8%	18.0%	3.2%	-4.8%	-11.1%
More than 250	8.7%	4.6%	6.6%	4.6%	11.7%	9.4%	4.1%	-7.1%	-2.8%
Total economy	14.8%	9.3%	6.9%	9.2%	15.3%	19.8%	5.5%	-5.9%	-12.9%

Source: own calculations based on data from Estonian business registry. When using averages (2005–2007), job flow rate definitions need not to hold exactly due to rounding.

During the crisis, job destruction increased and creation decreased. Spurious dynamics appear in the job creation rate: the firm entry rate increased (from 10% in 2007 to 16% in 2008–2009, not presented in the table), and similarly job creation due to entry also increased (from 3.3% in 2008 to 3.8 in 2009 – the biggest increase can be seen in northern Estonia). That could indicate that in many cases owners have decided to close the firm that has run into financial difficulties and to establish another company that takes over the operations. The overall job reallocation (sum of creation and destruction rates) has somewhat increased (24% for 2005–2007, 26.7% in 2009), while the excess reallocation of labour (gross reallocation minus absolute value of net change) decreased from 19% in 2008 to 14% in 2009, indicating fewer changes in the employment structure. On the other hand, the decreased creation rate is in contradiction with the relatively stable hiring rate. The overall job reallocation, which is relatively stable, and increasing worker flows (sum of separations and hirings) could indicate simultaneous hiring and firing over the year or churning (using the definitions of Burgess et al. 2000): while there were many job losses in early 2009, as the situation improved, firms started to hire workers again, and that may be reflected in the annual data as simultaneous hiring and firing. The differences across various labour market segments show that domestic private and foreign firms have been quite similar across industries, firm size groups and regions – increased destruction almost always accompanies decreased creation, except among larger firms for 2008–2009.

3. ADJUSTMENT THROUGH PART-TIME EMPLOYMENT AND WORKING HOURS

The Baltic States have been characterized by rather high weekly working hours and a low incidence of part-time employment compared to the rest of the EU[4]. In the Baltic States, adjustments

[4] For instance, in 2008 the average weekly working hours in Estonia, Latvia and Lithuania were respectively 39.5, 40.1 and 39.1 hours (EU average 37.8, Eurostat).

through working hours have been the most extensive compared to other CEE countries (Table 7). Adjustments in working hours have been more extensive for males (especially in Latvia, -2.4% for males and -1.4% for females). In Estonia the adjustment was stronger in manufacturing (-2.5%), while in Latvia and Lithuania in construction (respectively -3.6% and -1.8%). Svejnar and Semerak (2009) argue that the observed adjustment in the form of a shorter working week in new member states could be temporary and could later translate into unemployment. Shortened working hours may appear due to higher frequency of part-time employment, extra vacations and so on: according to the Estonian LFS, among different reasons for working less than the usual number of hours during the previous week, the importance of the reason "Shortage of work or hours" increased from 6% in 2008 to 14% in 2009; at the same, among the reasons for working less than the normal working hours, the frequency of "Overtime" did not decrease much.

Table 7. Reduction of working hours during the crisis

	Average number of actual working hours at main job			Share of working hours in labour input reduction
Country	**2008**	**2009**	**2008-2009, % change**	
Estonia	39.1	37.6	-3.8%	29.1%
Latvia	39.4	38.8	-1.5%	11.0%
Lithuania	39.2	38.6	-1.5%	17.8%
Slovenia	39.5	38.8	-1.8%	45.8%
Bulgaria	41.0	40.3	-1.7%	35.6%
Hungary	40.0	39.6	-1.0%	28.0%
EU-24	37.3	36.9	-1.1%	37.6%

Source: Eurostat, own calculations.

Note. The share of hours in the reduction of labour input has been calculated by differentiating the natural logarithm of the total labour input (hours multiplied by number of employed).

Table 8 presents the figures for the share of part-timers in employment. While average part-time employment was stable in the EU-27 for 2005–2007, and 2008–2009 increased slightly (0.5 percentage points), fluctuations have been much larger in the Baltic States. The recession did not cause only a decrease in the number of employed, but it also forced many companies to use part-time work due to decreased demand. The share of part-time work increased from

7.2% to 10.5% in Estonia. With this indicator, Estonia reached the first place among NMS (Employment and Working Life in Estonia 2008–2009). In Latvia and especially Lithuania the increase in part-time employment was more modest. In the last two quarters of 2009, the frequency of part-time employment decreased in Estonia, probably due to the fact that employers who used the adjustment of employee working time either overcame their financial problems or fired redundant workers.

As in most other EU member states, the incidence of part-time is more frequent among females, youngsters and the elderly in all three Baltic States. During the recession the incidence of part-time employment has grown in all labour market groups, but the increase has been the largest among youth in Estonia and Latvia. This reflects the sector-based segregation of the work-force: compared to middle-aged, youth and elderly are more often employed in service sector companies where the impact of the recession has not been as large as in industry where more middle-aged are employed (see LFS data).

Still, emerging part-time employment among men is also noticeable. The conclusion is that part-time work has been extensively used in the Baltic States, especially in Estonia, to adjust to the economic recession. While in the period of rapid growth and labour shortages, part-time employment was promoted to include in the labour market those who were not interested in participating full-time (youth, women with small children, elderly), in the recession demand-side factors were of paramount importance and part-time work enabled employers to avoid mass dismissals.

Another adjustment mechanism to reduce labour costs has been the use of partly paid forced vacation (in Estonia at least 60% of the minimum wage must be paid during that period). Data from the Estonian Labour Inspectorate on applications for partially paid leave or part-time working shows that at the end of 2008 there was a sudden increase in both applications and the number of employees (Figure 2).

Table 8. Frequency of part-time employment by gender and age

Country	Group of workers	2005	2007	2008	2009	Percentage point change, 2007-2007	Percentage point change, 2008-2009
Estonia	All	7.8	8.2	7.2	10.5	0.4	3.3
	Males	4.9	4.3	4.1	7	-0.6	2.9
	Females	10.6	12.1	10.4	13.8	1.5	3.5
	15-24	16.9	13.8	12.9	17.7	-3.1	4.8
	25-49	5.1	5.6	4.7	7.7	0.5	3.0
	50-74	11.5	11.5	10.1	13.9	0.0	3.8
Latvia	All	8.3	6.4	6.3	8.9	-1.9	2.6
	Males	6.3	4.9	4.5	7.5	-1.4	3.0
	Females	10.4	8.0	8.1	10.2	-2.4	2.2
	15-24	9.9	12.9	9.6	15.0	3.0	5.4
	25-49	6.6	3.6	4.3	7.2	-3.0	2.8
	50-74	11.9	9.7	9.0	10.5	-2.2	1.5
Lithuania	All	7.1	8.5	6.7	8.2	1.4	1.5
	Males	5.1	6.9	4.9	6.9	1.8	2.0
	Females	9.1	10.1	8.6	9.5	1.0	0.9
	15-24	8.3	9.3	10.7	12.0	1.1	1.3
	25-49	5.9	6.9	5.4	6.7	1.1	1.4
	50-74	10.3	12.5	8.8	11.0	2.2	2.2

Source: Eurostat

For applications the increase was extraordinary – from 96 in the 3rd quarter to 653 in the 4th quarter and 1,025 in the first quarter of 2009. The number of employees involved increased from 3,400 in the 3rd quarter to 26,400 in the 4th quarter. However, in the 2nd quarter of 2009 the number of applications fell back to about 400 and the number of employees involved was about 21,000. This could have been due to the recovery of demand in some firms, but in many cases also probably because employees were first transferred to unpaid vacation and if the recession continued, were later dismissed (it is possible to use the partially paid leave for up to 3 months). ELFS data shows that among different reasons for being absent from work in the previous week, the frequency of forced vacation increased from 1% in 2007 to 7.6% in 2009. Groups of workers most often sent to involuntary vacation were construction workers, those with basic education, people employed in the primary sector, domestically owned

firms and males. On the other hand, this method was not used much among youth.

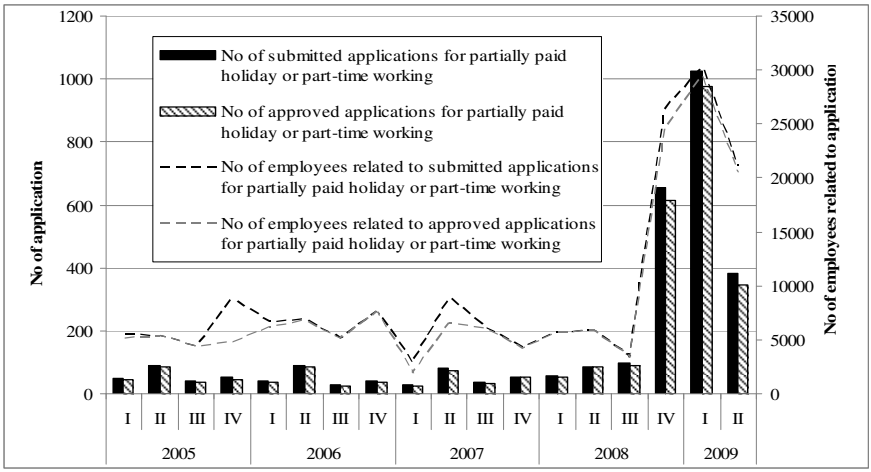

Figure 2. The use of partially paid leave or part-time work in Estonia for 2005–2009
Source: Labour Inspectorate of Estonia

Table 9 presents the reduction in working hours for different labour market segments. Hours have been reduced more often among the elderly and young employees, union members, those with basic education and public services, while less often in construction and some small firms. Thus, we can see here the different adjustment patterns across industries: while in construction employment change was more important, adjustment through working hours is more important in the public sector. The reduction of working hours is usually accompanied by a reduction in monthly pay (according to the LFS that applied to 70% of working time reductions in 2009). The natural question is whether the cuts in hours have helped to preserve employment. Indeed, across various labour market segments there was a negative correlation observable between the frequency of cuts in hours and the frequency of job loss.

Table 9. Average weekly working hours for different groups of employees in Estonia

Variable	Average hours, 2008	Average hours, 2009	Percentage change in average hours, 2007-2008	Percent of reduced working hours, 2008-2009
All	39.6	38.9	-1.8%	14.5%
Male	40.7	40.0	-1.6%	11.8%
Female	38.4	37.7	-1.7%	17.2%
Basic education	40.6	38.9	-4.1%	18.1%
Secondary education	39.7	39.1	-1.5%	15.4%
Higher education	38.6	38.5	-0.4%	11.8%
Age 15-24	40.2	37.5	-6.7%	32.6%
Age 25-49	40.6	39.6	-2.3%	10.9%
Age 50-75	38.9	37.7	-2.9%	18.1%
State	38.5	38.5	-0.1%	14.6%
Foreign	40.4	39.9	-1.1%	15.1%
Domestic private	39.8	38.7	-2.8%	14.3%
1-10 employees	39.0	37.7	-3.2%	14.6%
11-49 employees	40.0	39.1	-2.1%	14.0%
50-199 employees	39.5	39.2	-0.8%	17.8%
200-499 employees	39.4	39.7	0.7%	10.6%
11-49 employees	39.8	39.2	-1.4%	14.6%
North Estonia	39.4	38.3	-2.7%	17.0%
Central Estonia	39.8	39.2	-1.5%	11.9%
North-East	39.7	39.4	-0.8%	12.0%
Western Estonia	39.5	38.9	-1.6%	9.2%
Southern Estonia	39.3	38.7	-1.6%	15.3%
Union member	39.2	38.9	-0.6%	16.0%
Blue collar job	40.0	39.3	-1.9%	16.3%
White collar job	39.1	38.4	-1.7%	12.6%
Primary	42.0	40.7	-3.2%	14.7%
Secondary	40.3	39.5	-2.0%	14.6%
Construction	41.5	40.2	-3.3%	6.9%
Business services	39.5	38.9	-1.6%	16.0%
Public services	37.9	37.7	-0.7%	16.2%

Source: Estonian LFS, own calculations1998–2000 and for CIS4 during 2002–2004.

4. GROWING WAGE INEQUALITIES AND ADJUSTMENTS THROUGH WAGE CUTS

The dynamics of wages during the crisis is worth paying special attention in the Baltic States, as past reactions to economic downturn due to Russia's financial crisis in 1999 showed that unlike many other countries[5], wages were decreased in some sectors in the Baltic States during the crisis (Masso et al. 2007). The Baltic States have been characterized by rather weak wage fixing institutions (modest minimum wages, weak unions, low coverage of collective agreements – see paragraph 1), thus stronger reactions to adverse shocks through changes in wages are more likely to occur than in countries where industrial relations are more developed.

During the crisis, inflation rates have been very low or even negative in the Baltic States, thus reduction in real wages could only occur through cutting nominal wages. The traditional reasons for downward wage rigidity could still exist: in the wage survey among Estonian enterprises in 2005 the enterprises surveyed gave similar responses to the factors that would inhibit wage reductions, such as a reduction in worker productivity (84% of employers), reduction in the firm's competitiveness in the labour market (80%), the worsening reputation of enterprises in the labour market (81%), lower working morale (77%) and increased labour mobility (71%) (Rõõm and Uusküla 2006). Still, one has to keep in mind that the study was conducted in the period of rapid economic growth. Downward rigidity was also indicated by the fact that firms' planned responses to changes in the economic environment were asymmetrical with positive developments having a faster impact than negative developments.

[5] The downward rigidity of wages is a common phenomenon, and even during recessions it is not so common to observe wage cuts; for example, the study by Agell and Bennmaker (2003) among Swedish human resource managers showed that only 1.1% of the workers received a wage cut during the deep crisis of the 1990s (under conditions of an unemployment rate of around 10%).

Table 10 illustrates the dynamics of annual wage increases. While during the period of rapid economic growth (2005–2007), the annual wage increase was 20% or more, at the beginning of the recession wage increases slowed and were negative in 2009. Latvia, which scored the highest in the growth period, also experienced the earliest and deepest decline during the recession. The wage growth preceding the recession was clearly unsustainable: during the boom real wage growth exceeded productivity growth; this undermined competitiveness and continued during the recession despite large-scale wage cuts. The turning point arrived in the last quarter of 2009, and in 2010 productivity growth has been clearly ahead of wage growth. Thus, the Baltic States differ from other EU countries in that the huge employment reduction was accompanied by a large reduction in aggregate productivity, while in other EU countries different patterns can be seen (Marelli et al. 2010).

Table 10. Real wage growth and productivity growth in the Baltic States

Indicator	2005	2006	2007	2008	2009	2010, 1st half
Estonia						
Nominal wage growth	11.4%	16.2%	20.4%	14.1%	-4.6%	-0.6%
Real productivity growth	7.2%	3.9%	5.5%	-5.2%	-5.0%	8.5%
Real wage growth	7.0%	11.2%	12.8%	3.1%	-4.8%	-2.0%
Wage share	44%	44%	47%	51%	52%	49%
Real unit labour cost	-2.1%	0.4%	6.2%	8.4%	1.2%	-9.6%
Latvia						
Nominal wage growth	16.4%	22.7%	31.7%	21.0%	-3.8%	-7.2%
Real productivity growth	8.8%	6.8%	6.9%	-4.5%	-6.0%	6.0%
Real wage growth	8.9%	15.1%	19.7%	4.9%	-7.0%	-4.3%
Wage share	41.9%	43.9%	46.9%	50.5%	47.0%	44.1%
Real unit labour cost	4%	5%	6%	7%	-6%	-12%
Lithuania						
Nominal wage growth	10.0%	16.6%	19.4%	19.6%	-4.3%	-6.4%
Real productivity growth	4.6%	6.1%	7.3%	4.1%	-8.4%	4.3%
Real wage growth	7.2%	12.3%	12.9%	7.6%	-8.2%	-6.4%
Wage share	40.8%	42.9%	43.1%	44.5%	44.6%	42.3%
Real unit labour cost	-0.6%	3.4%	-1.8%	0.5%	0.9%	-9.7%

Source: own calculations based on data from Eurostat and national statistical offices

Table 11 shows that wages have declined throughout the economy, but there are differences between sectors. We have stressed the problems in the construction sector in several parts in this study – while large observable nominal wage cuts in Estonia (–13%) and Lithuania (–21%) can be seen, the change is much more modest in Latvia (–1%). Secondly, public administration has been hit rather hard (from 7.6% in Estonia to 18% in Latvia), reflecting cuts in the budgets of both national and local governments; though the latter have also occurred through employment cuts and unpaid vacation, the change in public sector employment was relatively modest in Estonia and Lithuania. Despite the large decline in industrial production, the average wage in manufacturing has declined much less than in many branches of business service.

The primary sector and mining and quarrying have suffered, too. Almost the only sector with a positive wage change is the energy sector, which could reflect the monopolistic position of the enterprises in this sector. Differences in education are quite large across countries: while in Estonia the decline was modest (in fact at the beginning of 2009 teachers even achieved some wage increases that were later reversed), the wages in Latvia were cut substantially – from 1 September 2009 teachers' monthly gross wages were reduced by 28% (Curkina 2009). In public administration again the largest contraction can be seen in Latvia: on 1 July, wages below LVL 300 were cut by 15% and those above LVL 300 by 20% (Curkina 2009).

Summarizing the differences between public and private sectors, wage cuts have been especially severe in the Latvian public sector: private sector wages in Estonia as a % of public sector wages decreased from 106% to 96% for 2008–2009, in Lithuania from 88% to 84% and in Latvia they increased from 78% to 86%. While all the above information applies to gross wages, net wages were further reduced in Latvia due to the reduction of the tax-free allowance and the introduction of progressive income taxation (see appendix).

Table 11. Annual wage changes in the Baltic States by economic sector

Industry	Estonia		Latvia		Lithuania	
	2008	**2009**	**2008**	**2009**	**2008**	**2009**
Total economy	13.8%	-4.6%	20.6%	-4.0%	19%	-4%
Primary	17.7%	-7.4%	17.2%	-4.6%	23%	-8%
Industry	11.5%	-3.5%	13.4%	-4.0%	18%	-4%
Manufacturing	10.8%	-3.9%	19.8%	-2.1%	18%	-4%
Energy	17.0%	6.8%	5.6%	-5.0%	16%	0%
Construction	8.3%	-13.4%	19.0%	-1.1%	10%	-21%
Business services	12.3%	-4.2%	21.0%	-1.8%	19%	-5%
Public services	17.4%	-4.5%	20.2%	-9.7%	22%	-11%
Public administration	15.7%	-7.6%	16.1%	-18.0%	23%	-10%
Education	20.4%	-2.5%	23.4%	-9.9%	26%	8%

Source: national statistical offices of Estonia, Latvia, Lithuania

Given the above evidence, the reason why workers agreed to wage reductions could be that wage cuts occurred throughout the economy, so also workers' outside option was reduced (cf. the relative wage theories of wage rigidity). The other reason was certainly the low coverage of collective agreements and the weakness of trade unions (Masso, Eamets 2007). It has been indicated that sometimes unions have agreed with wage reductions in order to maintain jobs, while cases could also be found where companies have introduced wage cuts without prior agreements from the unions (like the case of one Finnish-owned supermarket chain in 2010, Osila, Nurmela 2010). It should be noted that Estonian legislation does not allow one-sided wage reductions, so in each case the employees had to sign the wage reduction agreement, but they accepted this in order to avoid being laid off.

Wage flexibility is also achieved by various flexible pay schemes: according to the Bank of Estonia's wage survey, about 78% of enterprises used payment schemes that were based on either individual job performance or firm-level economic performance (Rõõm and Uusküla 2006). Given the wage increases observed before the crisis, it has been argued that the wide-spread wage cuts are necessary in order to achieve internal devaluation; in other words, to recover international competitiveness without changing nominal exchange rates. The case studies of Estonian companies

indicate that despite widespread cuts and the fact that the crisis hit almost all industries, there can still be found companies that did not even consider wage cuts and have achieved adjustments using other means. Anecdotal evidence shows that in some companies wage cuts have been equal for all employees, while in others these have been more modest for jobs attracting lower wages.

Table 12 presents various statistics on wage inequalities. The rather high level of inequality has not decreased during the crisis. The main contributing factor seems to come from the growth of returns to education (the wage premium for people with higher education relative to basic education increased from 51% in 2008 to 67% in 2009). The growing inequality is perhaps a bit surprising as there is much anecdotal evidence that during the wage cuts the wages of low-paid employees were reduced less than those of highly paid employees, but this probably reflects uneven wage reductions across sectors and firms. During the crisis the wage gap for the non-Estonian population has also slightly decreased. A declining part-time wage penalty has occurred because of growing part-time employment among males. Union members have been somewhat better off during the crisis compared to non-union members. The number of minimum wage recipients decreased slightly in 2009, that is perhaps a bit surprising given that the minimum wage – average wage ratio has increased (the minimum wage has been constant, but average wages have declined), but that is also because during the crisis many low-paid employees were vulnerable to unemployment. The percentage of low-paid employees is increasing, which is consistent with the increasing inequalities.

Developments in the gender pay gap deserve special attention in the Baltic States, as among EU countries the gap has been highest in Estonia (around 25%), and also relatively high in Latvia and Lithuania (15%). One effect of the recession was the narrowing of the gender pay gap in Estonia and Lithuania by almost 10 percentage points (unfortunately no data is available for Latvia). Given that the labour market situation for male dominated industries has especially suffered more (e.g. construction), the decreasing wage gap could reflect both sector shifts and decreased wage expectations among males. However, at the end of 2009, some signs of an increase in the gender pay gap were observable in both countries (in Estonia from

21% in the 2nd quarter of 2009 to 25% in the 1st quarter of 2010), which could be due to a recovery in industrial production and further budget cuts in the public sector.

Table 12. Wage inequalities according to the Estonian LFS for 2005–2010

Variable	2005	2006	2007	2008	2009	2010
Overall wage inequality, P90/P10	3.54	3.41	3.63	3.52	3.75	3.78
Wage inequality at the bottom, P50/P10	1.79	1.74	1.88	1.88	1.99	1.90
Wage inequality at the top, P90/P50	1.98	1.96	1.93	1.88	1.88	1.99
Percentage of low-paid employees	27.1%	27.5%	28.1%	27.5%	30.6%	30.6%
Proportion of employees at the minimum wage	6.7%	5.6%	5.4%	5.0%	4.2%	5.4%
Wages of females as % of males	-23%	-26%	-29%	-28%	-23%	-25%
Wages of non-Estonians as % of Estonian	-18%	-21%	-21%	-18%	-20%	-24%
Wages of union members as % of non-members	10%	-3%	-5%	-3%	4%	11%
Wages of part-timers as % of wages of full-timers	-2%	-5%	-9%	-10%	1%	6%
Higher education as % of basic education	61%	54%	41%	51%	67%	85%
Secondary education as % of basic education	4%	6%	4%	5%	10%	21%

Source: own calculations based on Estonian LFS; data on 2010 includes only the 1st quarter.

Table 13 presents the results of the Oaxaca-Blinder decomposition for the gender-wage gaps in different years (using the Estonian LFS and the Stata package Oaxaca written by Jann 2008). Basically, as we can see for 2005–2007, the proportions of the explained (due to differences in workers' characteristics) and unexplained (differences in returns to these characteristics, also the part attributed to discrimination) parts were similar to the findings of earlier studies

(Rõõm and Kallaste 2004 found in a total gap of 30% for 1998–2000 that the explained part was 8% and the unexplained part 21.3%). For 2009, we can see that the reduction in the gender wage gap has taken place at the expense of the explained part (among which the most important factors are sector and occupational segregation), at the same time, the unexplained part of the wage gap has not changed; in other words, the differences in the valuation of certain characteristics between females and males (e.g. differences in returns to education) have not decreased.

Table 13. Oaxaca-Blinder decomposition of the gender wage gap for 2005–2007, 2008 and 2009

Variables	**2005-2007**	**2008**	**2009**
Wage gap	0.29 (29.98)	0.31 (21.39)	0.26 (21.07)
Unexplained	0.24 (25.76)	0.24 (16.81)	0.28 (22.55)
Explained	0.05 (7.07)	0.08 (6.26)	-0.03 (-2.58)
Education	-0.022 (-9.59)	-0.03 (-7.23)	-0.035 (-10.07)
Sector	0.027 (5.21)	0.026 (2.93)	-0.002 (-0.32)
Age	0.014 (8.38)	0.015 (5.26)	-0.001 (-0.47)
Nationality	0.001 (1.14)	0.002 (0.79)	0 (-0.15)
Firm size	0.028 (4.73)	0.046 (4.84)	-0.002 (-0.23)
Ownership	0.012 (3.87)	0.021 (4.08)	0.014 (2.7)
Occupation	-0.006 (-5.35)	-0.002 (-0.99)	0.002 (1.38)

Source: own calculations based on Estonian LFS data

Note: Z-statistics are in the parenthesis.

Next we analyze wage cuts at the individual level. The Estonian LFS data includes data on wages and each person is observed first for 2 quarters, and then after a 2-quarter break for another 2 quarters[6]. Table 14 shows that by 2009, those having their net wages reduced constituted 42% of all people employed one year earlier. While approximately 70–80% of employees experienced wage increases during the period of high wage growth, in 2009 the figure dropped to 33%. While wage cuts were somewhat more frequent among males

[6] For wages we have only one number, thus we can't say whether the wage cut is due to the cut of base pay or reduction in bonuses.

compared to females, education is rather important and among those with higher education the probability of a wage cut was much lower. Concerning earlier studies, Babecky et al. (2009) found downward nominal wage adjustments less often in Estonia and Lithuania than in other EU countries, but Purfield and Rosenberg (2010) argued that this was probably due to tight labour markets during the boom years when the survey was undertaken.

Table 14. Proportion of workers whose nominal hourly wages were increased or cut over the year

Indicator / group	2006	2007	2008	2009	2010, 1st quarter
Frequency of wage increase, all employees	69%	77%	67%	33%	34%
Frequency of wage cut, all employees	23%	15%	16%	42%	51%
Basic education	23%	18%	21%	51%	61%
Secondary education	23%	13%	18%	50%	52%
Higher education	26%	17%	16%	34%	45%
Females	23%	15%	16%	43%	48%
Males	24%	15%	20%	50%	57%
Blue collars	22%	15%	20%	52%	60%
White collars	25%	15%	16%	40%	44%
Low wage	29%	22%	25%	61%	71%

Source: own calculations based on Estonian Labour Force Survey data

We also ran a probit model for the probability of wage cuts, and linear regressions for the size of the wage change (Table 15). For a comparison, the two last rows present the estimation results of a probit model for flows from employment to non-employment. As we can see, after controlling for other factors, the aforementioned conclusions still hold: wage cuts are more frequent in construction, northern Estonia (capital region) and lower levels of education.

There are no significant differences in the probability of wage reductions across firms with various owners, but if wage cuts occur, these are larger in private sector enterprises, both domestic and foreign owned (and a bit smaller among foreign firms)[7]. Wage cuts are also more frequent among small firms (11-199 employees). The noted differences between blue-collar and white-collar occupations are no longer statistically significant once we control for other variables. Concerning flows out of employment, many patterns are similar: the probability of moving from employment to unemployment is higher for men, youth, the private sector (especially foreign owned firms) and certain sectors (especially construction, but also manufacturing and the primary sector). For youth, re-entry to studies has been one way of responding to reduced job opportunities. Employees of foreign firms have once again higher probability of being affected by the crisis. Employment in sectors other than services (either private or public services) has also had a positive impact on the probability of losing one's job. People with higher education have a significantly lower probability of moving out of employment.

[7] Foreign firms' greater orientation to international markets could make them more responsive to the global crisis. On the other hand, foreign firms might also have more internal reserves while domestic firms need to react immediately to declining revenues with cost cutting.

Table 15. Regression models for wage cuts and wage changes between 2008 and 2009

Variable	Probit model for wage cuts		Regressions for wage changes among those with wage cuts		Probit model for flows from employment to non-employment	
	Marginal effect	T-stat.	Coef.	T-stat.	Marginal effect	T-stat.
Males	0.010	(0.43)	-0.024	(-2.20)**	-0.003	(-0.25)
Secondary education	-0.002	(-0.09)	0.010	(0.78)	-0.019	(-1.35)
Higher education	-0.106	(-3.05)***	-0.034	(-1.92)*	-0.047	(-2.69)***
Age 25-49	0.021	(0.87)	-0.020	(-1.75)*	-0.050	(-4.15)***
Age 50-75	0.044	(1.64)	-0.033	(-2.58)**	-0.019	(-1.36)
Foreign	-0.012	(-0.26)	-0.055	(-2.61)***	0.005	(0.20)
Domestic private	0.030	(0.81)	-0.081	(-4.34)***	0.037	(1.82)*
11-49 employees	0.074	(2.62)***	0.008	(0.54)	0.019	(1.29)
50-199 employees	0.111	(3.51)***	-0.004	(-0.23)	0.000	(0.00)
200-499 employees	-0.038	(-0.76)	-0.008	(-0.27)	0.035	(1.16)
More than 500 employees	0.083	(1.50)	0.020	(0.76)	0.010	(0.32)
Central Estonia	0.022	(0.70)	-0.011	(-0.70)	-0.003	(-0.16)
North-East	-0.073	(-1.73)*	0.026	(1.28)	-0.016	(-0.74)
Western Estonia	-0.051	(-1.57)	0.033	(2.12)**	-0.023	(-1.42)
Southern Estonia	-0.025	(-0.92)	0.007	(0.54)	-0.021	(-1.50)
Union member	-0.066	(-1.65)*	-0.002	(-0.11)	-0.046	(-2.07)**

Variable	Probit model for wage cuts		Regressions for wage changes among those with wage cuts		Probit model for flows from employment to non-employment	
	Marginal effect	T-stat.	Coef.	T-stat.	Marginal effect	T-stat.
White collar job	0.003	(0.14)	-0.004	(-0.34)	-0.028	(-2.12)**
Primary	-0.034	(-0.68)	0.005	(0.20)	-0.008	(-0.31)
Secondary	0.038	(1.30)	0.002	(0.13)	0.011	(0.70)
Construction	0.036	(0.89)	-0.043	(-2.02)**	0.035	(1.67)*
Public services	-0.016	(-0.43)	-0.020	(-1.02)	-0.005	(-0.26)
Number of observations	2553		1152		4675	
Log-likelihood	-1719.768		461.642		-2067.580	
R-squared			0.074			
Pseudo R-squared	0.021				0.021	

Source: Estonian Labour Force Survey data

Note: the reference groups are females, youth (aged less than 25), state firms, northern Estonia, blue-collar jobs, non-unionized workers. In the probit model for wage cuts, the dependent variable is 1 if nominal wages were cut more than 3% during 2008–2009.

Table 16 shows to what extent the reduction in the firm's total salary payments has been achieved either through cutting nominal wages, working hours or a reduction in employment. As can be seen, despite widespread wage cuts, the bulk of adjustments in payroll costs still occurred due to employment reductions (see also Latvijas Banka 2009). Wage cuts are relatively more important in sales and trade, while in some others like energy all adjustments have taken place through employment and hours reductions.

Table 16. Changes in different labour indicators across industries as % for 2009 relative to 2008

Industry	Total payroll	Hourly pay	Average hours per employee	Number of employed
Primary sector	20.4%	22.1%	-0.3%	-1.1%
Manufacturing	-23.1%	-7.4%	-2.5%	-14.7%
Energy	-7.0%	-6.4%	-1.2%	0.5%
Construction	-38.5%	-14.1%	-2.0%	-26.9%
Business services	-16.3%	-9.0%	-2.1%	-6.0%
Public services	1.3%	3.8%	-0.6%	-1.8%
Total economy	-15.8%	-5.5%	-1.8%	-9.2%

Source: own calculations based on Estonian LFS
Note. The numbers on wages in the primary sector are not reliable and are different from the official statistics.

5. CHANGES IN OTHER WORKING CONDITIONS

This part of the report reviews the developments in other working conditions seen during the crisis. Firstly, we analyzed recorded workplace accidents as indicators of health and safety at the workplace. The representatives of the Estonian Labour Inspectorate have expressed the opinion that firms struggling to survive may pay less attention to the management of the work environment. The data shows that minor accidents have shown a pro-cyclical pattern, while the number of fatal accidents has had a clear downward trend since 2006 and the number of serious accidents was quite stable for 2005–2007 and decreased thereafter (see Table 17). As in Estonia, the total number of accidents in Lithuania decreased by 37% for 2008–2009. While one

explanation for this could be that the declining number of accidents simply reflects the decrease in employment, especially in certain sectors with high average frequency of accidents (more hazardous working conditions and greater risk of accidents, such as exists in construction and manufacturing), that does not seem to be the case. When looking at the number of accidents at work per 100,000 employees (thus effectively controlling for the sector and number of employees, but not working hours), the indicator has decreased in most sectors. The declining number of accidents may be related to less intensive work. The correlation coefficient between the changes in the value added produced in the sector and the change in accidents per 100,000 employees is 0.31, providing some support to this proposition. Another explanation could be an increase in compliance with various regulations, but the visits of the Labour Inspectorate to enterprises indicated that the general estimation of the working environment was quite similar in 2008 and 2009 (in both years the situation was considered "Good" or "Rather good" in 82% of enterprises). The number of different health and safety related violations discovered grew by 21% in 2009 compared to 2008 in Estonia, while it decreased by 10% in Lithuania.

The other indicators of health and safety are registered occupational diseases and diseases caused by working. However, as the changes in this field are rather long-term, it is not surprising to find that the number of occupational diseases diagnosed did not increase in Estonia in 2009 compared to 2008, while in Lithuania it decreased by 20% (State Labour Inspectorate of the Republic of Lithuania)[8].

Information on participation in training is relatively scarce in the Baltic States for the years of the crisis. According to the Estonian LFS, the proportion of those who had participated in some kind of training during the 4 last weeks was 2.6% in 2008, 2.8% in 2009

[8] The opinion of the Labour Inspectorate is that too few occupational diseases are diagnosed in Estonia (Tööinspektsioon 2009). In the opinion of the Labour Inspectorate, the declining number of diseases caused by work is related to the fact that employers do not send employees to mandatory health inspections.

and 3.3% in 2010 (1st quarter). Similarly, the average number of hours in training has increased (19.9 in 2008, 24.9 in 2009 and 32.9 in 2010). However, while in 2008 training was financed by the employer in 83% of cases, then in 2009 only in 72%, thus in 2009 it was more often financed from other sources. The results of our case studies (section 6) indicate that the situation is quite diverse in different enterprises.

Table 17. Accidents at work per 100,000 employed in Estonia for 2005–2009

Indicator	2005	2007	2008	2009	Percentage change 2005-2007	Percentage change 2008-2009
Number of accidents						
All accidents	3431	3723	4073	2927	9%	-28%
Minor accidents	2405	2615	3105	2314	9%	-25%
Serious accidents	1002	1087	947	594	8%	-37%
Fatal accidents	24	21	21	19	-13%	-10%
Accidents per 100,000 employees						
Minor accidents	396	399.1	459.3	387.2	1%	-16%
Serious accidents	181.4	165.9	144.2	99.4	-9%	-31%
Fatal accidents	4	3.2	3.2	3.2	-20%	0%
Total economy	564.9	568.1	620.4	491.3	1%	-21%
Primary sector	689.4	623.8	747.0	600.0	-10%	-20%
Mining	813.6	981.8	716.7	625.0	21%	-13%
Manufacturing	977.8	1134.1	1088.9	812.8	16%	-25%
Electricity, gas, water	240.0	444.4	628.6	465.3	85%	-26%
Construction	620.1	521.3	591.4	447.7	-16%	-24%
Business services	431.1	411.8	469.3	390.3	-4%	-17%

Source: Labour Inspectorate of Estonia

According to the LFS data, participation in training decreased most among manufacturing and blue-collars and increased among white-collars, but differences across other labour market segments were relatively small. The situation in Latvia and Lithuania is somewhat

worse. While we do not have specific data on training, the participation in the life-long learning in general increased in Estonia (9.8 to 10.6), but decreased in Latvia (6.8 to 5.3) and Lithuania (4.9 to 4.5) for 2008–2009.

One well-known phenomenon of the labour markets in the Baltic States is the use of unreported wages or envelope wages, although a downward trend has been observable. According to Kriz et al. (2007), while 19% of all working-age respondents received unreported wage income in 1999, by 2004 this had fallen to 14%. Despite the economic crisis, the proportion of employees receiving envelope wages decreased from 12% in 2008 to 9% in 2009 (estimates of the Estonian Institute of Economic Research). The indicator "working with oral employment contract" (used also by Kriz et al. 2007) decreased also (from 1.5 to 0.9%, own calculations from Estonian LFS data). The likely explanation for the decreasing incidence of envelope wages is that those earning envelope wages (construction workers, private sector employees, secondary jobs) have had a higher probability of losing their job. According to the traditional view the informal sector could expand during down-turns as it is inferior to formal employment, but there is also more recent evidence that it may behave pro-cyclically (Tyrowicz and Cichocki 2010), and thus the direction of change cannot be taken for granted.

The Estonian LFS includes data about general satisfaction with working conditions for 2007 and 2008 only. Generally, in all four areas of the enquiry satisfaction with working conditions somewhat increased: the proportion of those being almost or fully satisfied increased from 52% to 55% in health and safety, 51 to 53% in work intensity, 43% to 49% in health inspection, 47% to 50% regarding the design of workplace. Thus, the economic decline probably also had some positive impact, whereas during the period of strong growth some aspects of working conditions worsened (e.g. the work was too intensive). Due to the lack of data, it is not possible to say much about the impact of the crisis on the

reconciliation of work and family life[9]. Generally, Estonia has been characterized by low levels of part-time work, which in contrast to other countries, is not used by females to help combine work and family life (but is rather used among the elderly and students), thus some full-timers can't decrease their working-hours even though they would like to do that (Krillo et al. 2007). Concerning developments during the crisis, among voluntary part-timers, the importance of family reasons (taking care of children or other family members) increased from 15% in 2008 to 19% in 2009 (while in 2005 it was 10%). The gap between the employment rates of females with children up to age 6 and males decreased during 2007–2009 (from 42 to 32 percentage points during 2007– 2009), indicating a somewhat improved position for females on the labour market.

Another piece of evidence on the quality of labour relations concerns labour disputes. The crisis has clearly affected the number of labour disputes. During the whole period, the majority (about 94–97%) of claims were submitted by employees in Estonia (see Table 18). While from 2005 until mid-2008 the number of claims submitted by employees was quite stable, in the 3rd quarter 2008 it started to increase and peaked at about 1,850 in the 2nd quarter 2009. Since then the number of claims has decreased gradually. The rise was probably partly due to the new Labour Contracts Act that entered into force in July 2009 and partly due to recession. Given the growing number of layoffs, the increase in the number of claims on unlawful termination of contracts is to be expected; the increase of these claims (91%) is more or less in line with the increase of employment contract terminations at the employer's initiative (84%, according to LFS data). Concerning the claims of unpaid wages while the labour contract is still in force, their number has increased as well (by 50%). The claims of withholding or not paying holiday pay have increased a lot as well. Given the decreasing employment, these developments clearly indicate that during the crisis a lot of problems have emerged about the timely payment of wages.

[9] At the time of the writing only Estonian LFS was available, while earlier studies (Anspal, Karu 2007) have used the working life barometer data for 2000, 2003, 2005.

Table 18. The dynamics of different kinds of claims by employees and employers to the Estonian Labour Inspectorate*

Kind of claims	2005	2007	2008	2009	Percentage change 2005-2007	Percentage change 2008-2009
Claims by employees						
Total number of claims	4985	4230	6316	12166	-15%	93%
Claim on considering termination of EC** unlawful	677	472	681	1304	-30%	91%
Claim on considering termination of EC unlawful (pregnant or person raising under 3-year-old child)	37	27	31	53	-27%	71%
Claim on considering termination of EC unlawful (Claim submitted by representative of the employees)	4	1	6	0	-75%	-100%
Claim on unpaid wages during the working	2211	1274	2032	3054	-42%	50%
Claim on unpaid terminal wage	0	0	0	3034		
Compensation for detention of the terminal wage	908	1098	1628	1124	21%	-31%
Claim on compensation for withholding employment record book	23	17	11	0	-26%	-100%
Claim on annulment of disciplinary punishment	106	75	134	171	-29%	28%
Claim on unlawful withholding wages, compensation	109	83	110	85	-24%	-23%
Claim on withholding holiday and unpaid holiday pay	351	365	535	1078	4%	101%
Claim on the nature of the contract	44	55	70	0	25%	-100%
Claim on unequal treatment of the employee	0	7	8	10		25%
Break a contract due to breach of the contract on part of employer	0	0	0	648		
Other claims	515	756	1070	1605	47%	50%
Claims by employers						
Total number of claims	155	159	125	257	3%	106%
Compensation for material damage caused by employee	52	58	41	76	12%	85%

* Employees' reasons for claims are due to changes in the methodology not directly comparable during the whole period.
** EC – employment contract.

5. LABOUR MARKET POLICIES, INDUSTRIAL RELATIONS AND SOCIAL DIALOGUE DURING THE CRISIS

The tables in the appendices provide an overview of the various policy measures introduced in the three Baltic countries to stimulate labour demand. As mentioned already in the introduction, the ability of the Baltic States governments to follow expansionary fiscal policies has been rather limited during the crisis because of the need to control budget deficits. Despite that, expenditure to labour market policies has increased substantially during the crisis (Table 19), both in absolute figures and as a percentage of GDP: in Estonia from 0.2% to 1% and in Lithuania 0.4% to 0.9%[10]. Most of the growth has come from passive measures, but spending on active policies has increased as well: from 0.04% to 0.15% in Estonia, to 0.17% in Lithuania and from 0.07% to 0.24% in Latvia. Still, even after the increase, the expenditure as a % of GDP is well below the levels of the old EU member states (EU15, in 2008, 1.7% of GDP). The increasing funding from EU structural and social funds has helped to finance active policies; for example, in Lithuania the use of EU funds in the financing of labour policies grew 135 per cent. Expenditures on unemployment insurance have grown especially rapidly in Estonia due to the growing average size of the benefits (indicating the relatively higher wages of newly unemployed people) and the growing proportion of newly registered unemployment receiving benefits – they more often have the required job tenure. The fact that registered unemployed have been constantly below the LFS unemployment figures in the Baltic States is probably related to the modest support for the unemployed; still, during the crisis we can see that the ratio has grown considerably in Estonia. The conditions for receiving unemployment benefits have been stable in Estonia (the foreseen increase in benefits related to the adoption of a new law in 2009 was postponed), but in Latvia the duration

[10] Sources: Estonia – Unemployment Insurance Fund; Lithuania – Lithuanian Labour Exchange.

was increased to 9 months and the eligibility criteria were loosened (Purfield and Rosenberg 2010).

Table 19. Spending on labour market policies in Estonia before and during the crisis

Indicator	2005	2006	2007	2008	2009	Change in total, 2009
Total spending, % of GDP	0.17%	0.12%	0.11%	0.21%	1.04%	325.8%
Spending on active measures, % of GDP	0.05%	0.05%	0.03%	0.04%	0.15%	251.3%
Spending on passive measures, % of GDP	0.11%	0.07%	0.08%	0.17%	0.89%	341.7%
Unemployment benefit	54.5%	61.6%	46.4%	52.2%	68.2%	477.0%
Unemployment assistance	21.6%	17.2%	26.8%	15.1%	9.6%	179.5%
Benefit upon collective termination of EC	10.1%	10.6%	15.0%	17.2%	11.3%	190.6%
Benefits upon insolvency of employer	13.8%	10.5%	11.8%	15.5%	10.9%	211.6%
New recipients of UIB	8749	6074	6467	15743	54790	143.4%
New recipients of UIB / new registered unemployed	20.5%	24.1%	22.7%	33.1%	45.3%	46.2%
Average UIB during first 100 days for new recipients	183	212	256	319	350	24.5%
Registered unemployed / total (LFS) unemployed	49.9%	37.6%	42.0%	51.4%	70.5%	37.2%

Source: Unemployment insurance fund, Statistics Estonia, own calculations. The passive measures exclude data on early retirement.

Table 19 on participation in active measures shows that the total number of participants increased by more than two times in 2009. The ratio of participants to registered unemployed declined slightly. In Estonia the most important measures have been training and job advice. Participation has increased in all measures, but relatively more in start-up grants and job subsidies (in 2010). In Estonia the new action plan to tackle the crisis introduced in the 2nd half of 2009 aimed through the use of approximately 45 m euros to create 5,000 jobs through a range of measures. These included the development of business start-up support, broadening the conditions for wage subsidies and hiring more consultants for the unemployed. Training vouchers is one completely new policy measure introduced in 2010, with which micro and small firms can buy training from a pre-specified list of organizations (maximum

size of subsidy is about EUR 960); for micro firms it has also been made easier to apply for funding from other training measures by lowering the minimum amount of the subsidy. Some local governments have also initiated public works programmes; in particular the Tallinn city government has organized several temporary jobs (in transportation) in municipal enterprises at the minimum wage. But jobs have also been created in private enterprises using the wage subsidy; the upper limit of this is the national minimum wage plus the respective payroll taxes. We do not have detailed statistics on active policies in Latvia and Lithuania, but these have been broadened there as well. In Latvia, the public works programmes have offered full-time work to 24 thousand registered unemployed, and training and assistance in starting a business has been offered to job seekers. In Lithuania, the government introduced a large-scale programme consisting of various job support schemes at a total cost of 7% of GDP (Purfield and Rosenberg 2010).

Table 20. Participants in active labour market programmes in Estonia

Indicator	2005	2006	2007	2008	2009	2010	Change 2009
Total participants, thousands	29.6	23.4	20.9	21.5	48.0	49.1	123.2%
Training	44.6%	43.0%	33.8%	30.6%	36.1%	28.7%	162.8%
Job subsidies	2.9%	3.0%	1.0%	0.5%	0.4%	29.0%	67.2%
Start-up grants	1.2%	1.2%	0.7%	0.8%	1.0%	0.8%	205.6%
Public works	1.6%	1.8%	4.0%	2.8%	3.2%	2.3%	163.7%
Job advice	49.7%	45.7%	49.4%	56.0%	49.8%	18.5%	98.5%
Job club	-	-	-	0.0%	0.5%	2.6%	-
Other measures	0.0%	5.2%	11.2%	9.4%	9.0%	18.1%	114.6%
Ratio of participations in active measures to registered unemployed	44%	51%	57%	39%	35%	NA	-8%

Source: Unemployment insurance fund, Statistics Estonia, own calculations.

The most important legislative change in the field of labour relations in the recession period in Estonia was the new Employment Contracts Act that entered into force on 1 July 2009. The main aim of adopting the new law was to make the labour market more flexible and to increase social security provisions for

workers. While before the crisis employment protection in Estonia was more rigid than in Central and Eastern European and OECD countries on average, now it is more comparable to CEE countries (based on the OECD EPL index, Brixiova, 2009). The new labour contracts act has in many ways relaxed regulations on regular contracts: notice periods for redundancies were reduced (depending on the length of the previous employment contract, from 2–4 to 1 month); severance payments were also cut (from 2–4 to 1–3 months) and the payment is now shared by the employer and the Estonian Unemployment Insurance Fund. To promote the use of flexible forms of employment, the conclusion of fixed-term contracts is now allowed in all cases. In Lithuania, as in Estonia, reforms introduced more flexibility to employment relations, in particular, relaxing the conditions for the use of various flexible work arrangements (part-time, temporary employment etc.), reduced severance pays etc. (Purfield and Rosenberg 2010).

The recession has halted increases in the minimum wage. In Estonia and Lithuania, the minimum wage has stayed at the same level for 2008–2010[11]. By comparison, in Latvia at the beginning of 2009, the minimum wage was raised by 13% to the level of 180 lats; later in tripartite negotiations it was decided not to reduce minimum wages to prevent further reductions in the welfare level.

In the period of fast economic growth, the collective bargaining power of both employers and employees was more or less balanced and their influence remained relatively weak in Estonia. General pressure to raise wages did not originate from the trade unions, but the main driver of the wage increase was the scarcity of labour. During the crisis, we saw that union members have been doing somewhat better in terms of employment and wages. Although the Estonian Trade Union Confederation expected a decline in trade union membership due to the vast increase in unemployment and

[11] Similar to the national minimum wage, several collective agreements in Estonia aimed at increasing wages at sector (e.g. in road transport sector, initially 37% increase was foreseen, Nurmela and Karu, 2009) and firm level (the largest shipping company Tallink, where 9% wage increase was foreseen in September 2009 was postponed by 1 year) have been halted.

large collective redundancies in sectors where trade union membership has traditionally been higher (Nurmela 2009a), data from Estonian LFS indicates that trade union membership as a percent of salaried employees declined from 7.6% in 2007 to 6.2% in 2008, but then increased again in 2009 (7.6%) and 2010 (9.5%), which is somewhat contrary to the expectations. Union membership has increased in the capital region, large enterprises and the public sector, while having decreased in North-Eastern Estonia, the region with the highest unionization rate due to large industrial enterprises (detailed numbers are available upon request).

One of the peculiarities especially of Estonia compared to many other EU countries (and also Latvia) is that despite the rather radical steps taken by the government to balance the state budget during the recession, the reaction from citizens and trade unions was not as negative as one would have expected. Of course social partners made recommendations to the government and the parliament about how to deal with the downturn[12]. However, to

[12] For example, in September 2008, the Estonian Employers' Confederation forwarded its proposals on how to manage the economic downturn to the government (Nurmela and Karu 2008). The list of actions that should be undertaken covered different areas, like public sector expenditures and fiscal policy, public administration and e-government, taxation, investments, labour market and educational administration. With regard to the labour market, the employers proposed increasing flexibility in labour relations by adopting the hot-debated draft Employment Contracts Act negotiated between the social partners earlier in 2008 and promoting the use of flexible forms of work (fixed-term employment, part-time work, telework). The employers also called on the government to change the pension system to increase incentives to take up retirement, improving the availability of childcare facilities and making the regulations on parental benefit more flexible. The trade unions also made attempts to initiate dialogue – in 2008, EAKL and the Estonian Employees' Unions' Confederation expressed their dissatisfaction in a letter to the Prime Minister in which they claimed that 'in the conceptual issues of working life, the Estonian executive power has repeatedly tried to avoid dialogue with the employee representation bodies" and that

balance the state budget, the government pushed through several changes like decreasing social guarantees and cutting public sector wages without any negative reactions from either employees or employers. The relative weakness of both trade unions and employers' representatives in Estonia has clearly played some role here. Although the social partners have of course reacted, they have not had enough power to either force the government to change its plans or to negotiate for more favourable conditions (except in Lithuania in 2009, see appendix). For example, in February 2009, the Estonian parliament approved a state budget cut of EEK 8 billion (€ 11 million) including cuts to public sector wages (7% on average) and changes to cash sickness benefits. While trade unions opposed the former, employers' representatives were not satisfied with the latter, which posed a large burden (according to estimates, EEK 500 million (€32 million) in terms of employers' expenses (Nurmela 2009b). However, both changes were implemented[13].

One of the indications of the relative weakness of the social partners was the increase in the unemployment insurance premiums both for employers and employees in Estonia (see box).

"several draft acts that are significant to employees… have been drafted without involving the social partners' (Nurmela and Karu 2008).

[13] The system of sickness benefits was changed as well. Until July 2009, from the second day of illness, sickness benefits were paid by the Estonian Health Insurance Fund at a rate of 80% of the employee's average wage. From 1 July 2009, the period not covered by sickness benefits was increased to 3 days. For the subsequent 5 days of illness, sickness benefits are paid by the employer at a rate of 70% of the average wage of the employee. The Health Insurance Fund pays sickness benefits (70% of the employees' average income taxed with social security tax) only from the 9th day of illness.

Box: changes in the unemployment insurance system as a response to economic growth and crisis in Estonia[14]

In 2002, a new unemployment insurance system supplementary to unemployment allowance was implemented in Estonia. The system covers the involuntarily unemployed, and there is a claim of unemployment insurance tenure (12 months within the previous 36 months). Unemployment insurance covers the risks of becoming unemployed, redundancy[15] and an employer's insolvency. The duration of unemployment insurance benefit payments depends on the length of employment and on contributions to the Unemployment Insurance Fund (UIF)[16]. Unemployment insurance is financed through unemployment insurance premiums, which are obligatory for all employers and employees until pensionable age and is administered by the UIF. The Estonian Unemployment Insurance Act provides for certain flexibility in the rates of unemployment insurance premiums, as they can range from 0.5% to 2.8% of the gross wage for employees and from 0.25% to 1.4% of the gross wage for employers. The unemployment insurance premium rate is set annually by the Government based on the proposal made by the supervisory board of the UIF[17] (hereinafter the Supervisory Board), which is a tripartite body that comprises an equal number (2) of representatives of the Government, trade unions and employers' representatives.

Effects of the crisis

For a long time, the unemployment insurance premiums were 0.6% for employees and 0.3% for employers. On 27 November 2008 when first signs of economic recession appeared, the Government approved

[14] Authors kindly thank Anne Lauringson from the Unemployment Insurance Fund for her valuable input in this case study.

[15] Until July 2009 collective redundancy.

[16] Maximum benefits could be paid for 360 days (possible from 2011) if the employment and contribution period exceeds 111 months. For the first 100 days the benefit is 50% of the previous wage and 40% from there onwards.

[17] The supervisory board is a tripartite body that comprises an equal number (2) of representatives of the Government, trade unions and employers' representatives.

the proposal of the Supervisory Board to introduce higher rates for unemployment insurance premiums[18].

In the economic boom, there was public pressure to decrease unemployment insurance premiums. It was argued that there is no need to increase the reserves of the UIF to very high levels, partly because of the low rate of return on the invested funds that did not even cover inflation in 2007. However, the economic crisis evolved much more rapidly than most people would have believed. So, facing the economic crisis, the UIF decided to increase premiums to avoid running out of funds. Facing the vast increase in unemployment insurance recipients and payments, it was necessary to increase the contribution of both employees and employers to the unemployment insurance system to avoid running out of funds. In 2009, unemployment insurance premiums were increased three times and the premiums reached to the highest limit provided in law in August 2009 (see 3). By the end of 2009, the premiums had almost quintupled compared to the beginning of the year.

[18] Earlier in 2008, the supervisory board had stated that it would not be necessary to raise the rates of unemployment insurance premiums due to the extensive reserves of the Unemployment Insurance Fund that have accumulated during the period of economic growth and extremely low unemployment. However, it reviewed its decision in light of new and more pessimistic economic forecasts for 2009 and the government's plan to adopt the draft Employment Contracts Act earlier than it had initially planned.

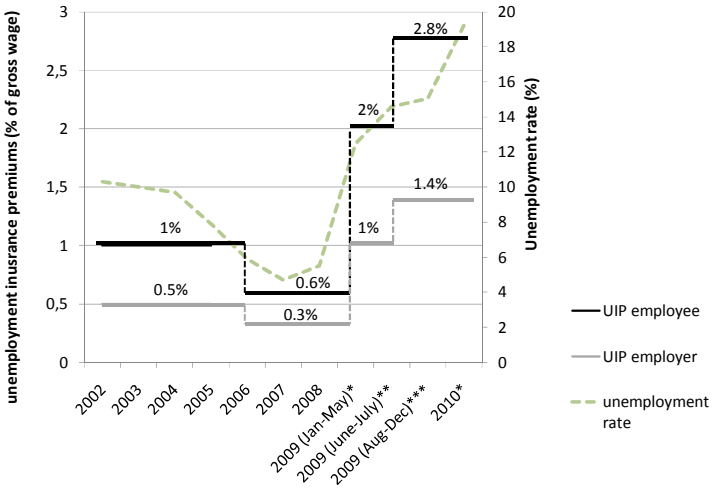

Figure 3 Changes in unemployment insurance premiums in response to economic fluctuations

Notes: *unemployment rate is calculated as an average of I and II quarter; **for unemployment rate III quarter figure is presented; *** for unemployment rate an average of III and IV figure is presented.

The lessons that the UIF have learnt have been painful, but still very valuable: the unemployment insurance system is relatively young in Estonia and before the crisis there were no data on how fast and to which volumes costs could increase.

Who are hit worst by the recession?

Lauringson (2010) has analyzed the effects of unemployment insurance benefits on unemployment duration for 2007–2008, when Estonia was entering the recession and already witnessing a slight increase in unemployment.

The main finding of the study is that unemployment benefits indeed have a strong and significant disincentive effect on hazard rates.

Unemployment benefits are major determinants of the hazard to leave unemployment to employment. The disincentive effect of unemployment benefits is strong even in a period of economic slowdown and rising unemployment. Young people tend to exit the unemployment insurance benefits system earlier and older people later. Men are less likely to leave compared to females, Estonian-speakers more than non-speakers and higher-educated more than less-educated.

The study leaves open the question of whether unemployment benefits also support job searches; in other words, whether people get better jobs because they can prolong the job search.

6. CASE-STUDIES ON ADJUSTMENTS IN DIFFERENT PARTS OF THE ECONOMY

6.1. Different adjustment patterns in estonian industrial enterprises

The following comparison of five Estonian industrial enterprises illustrates the different adjustment patterns chosen by individual enterprises due to differing initial conditions and business environments. After the outbreak of the crisis, Estonian industry has been perhaps the most dynamic in different sectors: in 2009 industrial production declined 26.1% compared to 2008, but in the 2nd quarter of 2010 industrial production was 20% higher than in 2009. Thus, we could also have information on personnel policies during the recovery. The 5 case studies are from very different sectors of industry and should represent typical enterprises in these sectors: 1) Eesti Energia, the largest energy producer; 2) Estiko Plastar, producer of various packaging materials, 3) Sangar, a sewing industry enterprise; 4) Hanza Tarkon, mechanics industry; 5) Toom Tekstiil, textile industry enterprise. The information is based on interviews with personnel managers or other members of

the management supplemented with additional information from other sources (e.g. annual reports)[19].

Estiko Plastar produces various packages and materials for packaging and exports about 43% of its production. During the crisis sales to different groups of customers changed: sales to the construction industry declined and sales to the food industry increased. The number of employees decreased from about 167 in 2008 to about 150 in 2010. There were almost no redundancies, in most cases the employment contracts were terminated by mutual agreement, and these terminations did not cause any labour disputes. The main groups of employees affected were people at retirement age[20]. Labour turnover has significantly decreased during the crisis (10% in 2007, 1% in 2009). The economic crisis has enabled the enterprise to improve its workforce, as it has been possible to choose quality candidates from among a better pool of applicants (as evidenced by the fact that they remained with the enterprise after their probationary period). The latter was noticeable only in 2009 but not in 2010. Part-time work was also used in 2009 for about 45 employees (80% of the regular working hours). The firm did not even consider the option of reducing employees' wages, but wages have not increased either. According to the opinion of the firm's personnel manager it is possible that wages will need to be increased soon in order to retain the good quality of the workforce. The training of employees has not decreased during the crisis, partly thanks to projects from Enterprise Estonia. Fringe benefits have not decreased either (for births, funerals, sports, Christmas parties etc.), as in the opinion of the management that would damage morale; only the paid 5-day holiday at Christmas has been abandoned. Balancing work and family life could have been easier during the crisis as workers had more time and there has been less work on the weekends. Involuntary vacations were only used with a few employees,

[19] The interviews were made with Anne Ladva (Estiko), Jaan Rozenthal (Sangar) Anu Ulp (Hanza Tarkon), Aivar Talvet (Toom Tekstiil), Riina Varts (Eesti Energia).

[20] These employees had lower retirement age (by 5 years) due to their work (thermo-processing of plastics), thus they were entitled to both pensions and unemployment insurance

although initially the enterprise submitted an application to the Labour Inspectorate to use it with all of its employees in order to achieve equal treatment of employees. The regular survey of job satisfaction indicated that this remained at the same level in 2009 as before despite reorganizations, employment reductions and increased requirements on work performance. In conclusion, the crisis had a positive impact on the firm's human resources. The relatively early response to the crisis was beneficial both to the firm and the employees leaving the firm, as these were able to find a new job during the early phase of the crisis. The reorganizations within the enterprise and the treatment of each employee on a case-by-case basis were also important for a successful adjustment.

Sangar is a sewing industry enterprise located in the city of Tartu. Its main products are shirts for men and blouses for women. Contracts with other brands account for 75% of sales and the rest is sold under Sangar's own brand. A reduction in orders was noticed only in the second half of 2009 with regard to advance sales and was more noticeable in relation to cub-contract. Sales to some markets decreased more (Iceland, Latvia, Lithuania), while the share of others increased (Netherlands). The number of employees decreased from 308 in 2009 to about 250 in 2010. However, according to information from the management, this was inevitable and not only related to the crisis, but also caused by the closure of two production lines. There have been very few redundancies and the reduction in the number of employees is mostly due to voluntary resignations. Labour turnover has significantly decreased (from 10% to nil). In 2009 wage cuts were introduced: 20% for office workers and 10% in production (since they already had lower wage levels) through a reduction in bonuses. It was easier to explain the need for wage cuts to the office workers, as they knew the background of the enterprise. In the opinion of the management thanks to the wage cuts there have been no wage arrears. The enterprise also started to use part-time work (30 hours a week, which could be increased to 40 hours as necessary) with summarized working time calculations that would also make it possible for people to work during the weekends (though this has not been used so far). This flexible working time arrangement has been applied to about 30 employees and has not only been as a direct result of the crisis, but also due to demand becoming less

predictable as a result of the crisis. Involuntary vacations have been used to a very limited extent. The collective agreement concluded in the enterprise specified various fringe benefits (for weddings, funerals, workers with long tenure etc.), and these have mostly been suspended. The supply of training has decreased considerably (at some point to nil); the first training in two years will be offered in autumn 2010. Despite the crisis it is still not possible to hire good sewers.

Toom Tekstiil is a textile industry enterprise with units in various towns (Viljandi, Abja). It produces mostly mattresses, bedding products and non-woven products. Most of the output (approx. 70–80%) is exported to EU countries on a sub-contracting basis while the rest is sold in Estonia under their own brand. The broad customer base has helped achieve stability of sales. The drop in sales in 2009 compared to 2008 was not large, but competitive pressure has increased, mark-ups have decreased and more work must be done to secure orders. The number of employees was reduced due to the re-organization of production; in Viljandi two production units were merged and as a result 50 employees were made redundant. Currently, there are about 250 employees in the different production enterprises of the group. Due to the lengthy redundancy procedures it was also necessary later to re-hire people as demand recovered. Wages were decreased for all employees uniformly by 25% in the middle of 2009 (without any differentiation, both administration and production employees). There were discussions about the wage cut, but it was decided that there was no alternative. There were no significant resignations due to the wage cuts despite the fact that there are several textiles industry enterprises in the region. There have not been any other fringe benefits due to the lack of collective agreement. The firm has also used fixed term contracts when extra labour was necessary (currently about 10–15% of all employees); part-time work or involuntary vacations have not been used. The crisis has been positive as it is possible now to be more selective when hiring employees, but the problem can also be that the best employees leave voluntarily.

Hanza Tarkon is a mechanics industry enterprise situated in Tartu doing sub-contracting for different industries (telecommunications,

automotive, energy etc). The firm's revenues decreased in 2009 by about 11%; the relatively higher share of sales to the telecommunication industry has helped to stabilize revenues. The number of employees was reduced from 570 in 2008 to 400 in 2009 mostly through redundancies (about 150 employees). Redundancies were used as the firm aims to be a transparent enterprise. During the process the firm cooperated with the Estonian Unemployment Insurance Fund and external contractors. During 2010, due to the recovery of demand, half of the people (the firm's previous employees) have been re-hired. The training budget was reduced, but it cannot be said that the amount of training has decreased, on average each employee participates in 3–4 training courses annually, and this also thanks to help from Enterprise Estonia, Tartu City Government and the Ministry of Education and Research. In 2009, part-time work (in the form of a 4-day week) was also used, but employees were not forced to take holidays. The company did not undertake (and did not consider) wage cuts despite increased competitive pressure because all the accompanying risks (decreased loyalty, motivation, will) would outweigh the benefits. Neither were there any wage increases. Several fringe benefits were in place for employees, and mostly these have not been cut. Demand has always been rather uncertain and especially after the outbreak of the crisis, thus the need for flexibility in employment relations is considerable. Since 1 July, about 20% of the employees have been employed on temporary (civil) contracts (tööettevõtuleping); most new employees, especially in 2010, were employed on temporary contracts. Based on the results of a regular survey, job satisfaction increased in 2010 compared to 2007 probably because of good working conditions (e.g. renovated working premises), the firm being a stable employer and supportive colleagues.

Eesti Energia is the largest energy producer in Estonia and is a state-owned, vertically integrated company engaged in power production, transmission, distribution and sales and other related activities. A new expanding field of activity is the production of fuels. Despite the drop in sales of energy to the domestic market, the company managed to increase its profitability (net income increased by 65% in 2009 compared to 2008) thanks to sales of energy in other markets, sales of oil shale oil and reduced

expenses. However, competitive pressure is increasing due to the liberalization of the energy market. The number of employees was reduced from 8501 to 7351. During 2009, among the 1229 employment contract terminations, there were 500 lay-offs and 300 contracts were terminated based on mutual agreement. The staff cuts occurred in many areas, and mostly concerned employees close to retirement age and people employed on fixed-term contracts. Part-time work has been used as well (by giving single free days) both in the mines and among white-collar workers. Many people had unused vacation that was used as well. Partly rewarded vacation was also used; for example, in the summer of 2009, one of the power stations (Balti elektrijaam) stopped production for 3 weeks during a period of low demand and approximately 200 people were sent on vacation.

Thanks to the crisis the firm has been able to discharge less capable employees and replace them with more skilled workers. During 2008–2010, wages have stayed at the same level; wage negotiations with trade unions were relatively easy (preservation of employment was more important for them), but now people are worried that the wages have been unchanged for 2 years and a certain expectation and pressure for future wage increases can be felt. Perhaps the most important method used for adjusting to the crisis was the freezing of certain fringe benefits foreseen in collective agreements; still, benefits related to family and health have been retained. The presence of 9 different collective agreements in the concern makes the reorganizations more difficult (e.g. when moving employees between different enterprises of the concern), thus the goal is also to unify the conditions of different collective agreements. The general goal is to abandon bonuses unrelated to work performance and replace them with bonuses based on work results and the creation of economic value added. This is not entirely due to the impact of the crisis, but the crisis has brought this issue more onto the agenda. Concerning training, though it was not the top area for savings, the training budget was somewhat reduced and now the company selects training options more carefully and avoids so-called luxury products, but has retained professional training. Concerning the availability of people for vacant positions, at least for positions requiring less skill, only the quantity and not the quality of applicants has

increased. One possible negative impact of the crisis (though no firm evidence exists) is that people could be less committed and loyal as they are tired from the work being more intensive, and may stay at work for the wrong reasons despite being dissatisfied with the work. Generally, in the opinion of the personnel manager, the firm has come through the crisis relatively well also thanks to the savings made quite early on.

The information on these 5 cases is summarized in the table below. We can notice rather different adjustment patterns. We can summarize that several changes were not due to the crisis, but the recession did increase the management's motivation to introduce them. The variation in the main adjustment mechanism across the enterprises contributes to work inequalities – some people are affected by wage cuts, other not, and both the size and the differentiation of wage cuts differs; some enterprises have been able to retain employment levels, but others not. This should explain the growing wage inequality that we noted in the LFS data. While earlier we referred to the heavy impact of the crisis on youngsters and males, the case studies demonstrate that in certain cases females and pre-retirement age workers were also heavily affected, thus the picture is more complicated and there are emerging inequalities also within various age groups, and for males and females.

Table 21. Different patterns of reaction to the crisis in Estonian industrial enterprises

Impact	**Estiko Plastar**	**Sangar**	**Hanza Tarkon**	**Toom Tekstiil**	**Eesti Energia**
Sector	Plastics	Sewing	Mechanics	Textiles	Energy
Change in sales, 2008–2009, %	-11.4	-21.7	-10.9	-5%	+1.8
Main adjustment mechanism	Employment reduction	Various (employment, hours, wages)	Employment reduction	Employment and wages	Cuts in fringe benefits
Employment	Employment reduction without major redundancies	Employment reduction without major redundancies, not only due to crisis	approx. 25% employment reduction through redundancies, recovery in 2010	approx. 20% of employees made redundant, later some re-hired	Reduction of about 13% through terminations for various reasons
Working	Part-time	Introduction of	Shortened 4-	No use of	Part-time

Impact	**Estiko Plastar**	**Sangar**	**Hanza Tarkon**	**Toom Tekstiil**	**Eesti Energia**
time	(80% of usual working-time) for about 30% of employees	part-time work with summarized working time, approx. 10 % of employees	day working week used in 2009	part-time work	work has been used, as well as vacations
Wages	No cuts to base pay	Wage cuts – 10% (management); 20% (production staff)	No wage cuts	25% for all workforce	No cuts to base pay
Categories of employees most affected	Pre retirement age employees	In production, mostly women	Redundancies affected whole enterprise relatively evenly (both males and females, employees mostly with secondary education)	In production mostly women	Pre retirement age employees
Training	No decrease	Decreased considerably	Some cuts in budget, but no major reduction	Not much training has been offered	Some cuts in budget, but no major reduction, more selective
Fringe benefits	Offered, not decreased	Offered, but now mostly suspended	Offered, mostly not reduced	Not offered	Quite many offered, mostly suspended
Other working conditions	Work satisfaction has not changed	No major changes	Work satisfaction has improved	No major changes	Work satisfaction data available later in 2010
Other aspects of crises	Crisis has made it possible to improve workforce	Reduced labour turnover	Reduced labour turnover	No voluntary resignations of best employees, better job applicants	Desire to unify the conditions of collective agreements

6.2. Wage cuts and other labour related adjustment mechanisms used in the Estonian Police as a response to the economic recession[21]

The Estonian Police (hereinafter the Police) is one of the largest public sector organizations in Estonia. At the end of 2009, it hired approximately 4230 people (police officers and civil servants)[22]. At the beginning of 2009, it was clear that the Police had to economize its budget. When facing the need to cut staff costs by EEK 110 million in 2009 due to state budget cuts (Reductions in budget resulted..., 13.11.2009), there were basically three options to consider: 1) decreased wages, 2) leave without pay and 3) redundancies. The Ministry of the Interior chose the first option. In July 2009, the Government changed the decree regulating wage rates for police officers. The nature of the wage cut is permanent, not temporary.

The decision to cut wages was made at the ministerial level, although both the Police Board (the central unit of the Police) and the Association of Trade Unions for Employees of State and Local Government Agencies (ROTAL) would have preferred other solutions (namely, the use of obligatory leave days without pay). In the opinion of Ele Nuka, representative of the Estonian Police Officials Trade Union, the negotiation process was difficult and

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[21] We kindly thank all people that provided input for the case study. The following were interviewed: Janne Pikma-Oovel (head of labour relations department at the Police and Border Guard Board); Vilve Kalda (head of administration at the Police and Border Guard Board), Ele Nuka (representative of the Estonian Police Officials Trade Union) and Riho Tamm, Veronika Remsel and Ketlin Nurk (labour relations specialists in prefectures until the end of 2009).

[22] In August 2010, the number of employed was 6260 (about ¼ of all public servants in Estonia), but it is not directly comparable due to structural changes in the organization. On 1 January 2010, the Police Board, the Citizenship and Migration Board and the Border Guard merged into one institution named the Police and Border Guard Board (PPA).

lasted several months since the retirement benefit for ex-police officials is related to the wage rates and the trade union did not want the first salary level to change. Still, eventually, the trade union abandoned this claim since it was obvious that changes were needed.

The wages were decreased by 8% at all salary levels (there are altogether 10 salary levels, with wage rates from EEK 8280 to EEK 28440). The same rates were agreed between the Ministry of the Interior and ROTAL on 10 December 2009 when a new collective agreement was concluded (Press Release No 239). Although the trade union proposed that wage cuts should be differentiated acoss different salary levels and that the first salary level should not be changed, this option was not considered by the Ministry.

Although the decree regulates the wage rates of police officers, several prefectures cut the wages of all staff including civil servants. In the Northern Police Prefecture, wages were cut by 8% for both police officers and other officials. In the Southern Police Prefecture the wages of the other officials (i.e. excluding police officers) were cut by 4%. In the Eastern Police Prefecture the wages of officials were not decreased. Therefore, in some sub-units of the Police wage inequality between police officers and other civil servants increased as a result of the wage decrease. Another effect of the wage cut was the decrease in retirement benefit for ex-police officers, since the retirement benefit is related to the minimum salary level of police officers.

However, in October 2010 it was widely discussed in the media that although it was manifested that the wage cut was uniform, in fact wages were increased in the management at the beginning of 2010. The Director General of Police and the Border Guard Board has argued that the wage increase was due to increased workload and responsibility due to merging the two institutions. Therefore, wage inequality has increased during the crisis. We can conclude that although it was emphasised that wages were cut based on a solidarity principle, this was not the case in reality.

At the beginning of 2010, when it was clear that it was necessary to save another EEK 200 million from staff costs, the administration of Police (now the Police and Border Guard Board) faced the same difficult question: where should the budget cuts be made? The decision was made at the administrative level (and approved by the Ministry of the Interior) not to apply wage cuts or redundancies, but to use more unpaid holiday leave[23]. Although at first the Ministry of the Interior took the standpoint that it is necessary to cut wages, both the Director General of the Police and Border Guard Board and the trade union forced the use of unpaid holiday leave instead. This was the best of the bad options because it meant that everyone could keep their jobs (not the case for redundancies) and their indirect loss in terms of wages was compensated in the form of free days (which is not the case in the other alternatives). Moreover, while changes to wages need to be made at the state level and this means that rates are only likely to increase several years later, the number of days of leave without pay can be changed much more flexibly.

In addition to wage cuts and unpaid leave days, other measures to cut staff costs have been used as well. In 2009, the Police administration made the decision not to hire additional employees unless it was absolutely necessary to do so. The workload of employees who left the organization was generally distributed between other employees. Moreover, the workload has increased not only due to this, but also because of the use of statutory unpaid leave.

In the economic boom period the main concern for the Police in terms of human resources was voluntary resignations, since in the

[23] However, facing the need to cut budgets, police prefectures applied other budget saving measures even before the decision to cut wages was taken at the Government level. The Eastern Police Prefecture applied obligatory unpaid leave days to balance the budget of the prefecture already in May 2009, and the Southern Police Prefecture did the same since June. The number of statutory unpaid leave days varied between different units depending on the need to cut the budget. Due to confidentiality reasons it is not possible to go into more detail here.

private sector the wages were higher. The economic recession partly solved this problem, since it was perceived that jobs in the public sector were more secure, only a few people left the organization due to wage cuts or obligatory unpaid leave. According to the head of the Estonian Police Board labour relations department, Janne Pikma-Oovel, there were two categories that left the organization after the wage cuts: 1) low-wage men who had to support their families; and 2) high-ranking officers (the latter left the Police during both the economic boom and the recession).

However, in the opinion of Janne Pikma-Oovel, this trend is about to change within the next year. The first signs appeared in summer 2010. She has observed that the current situation has negatively influenced the morale of the employees. The same conclusion was made by the representative of the trade union as well. While in the beginning of the adjustment period people understood that wage cuts and unpaid leave days were absolutely necessary to avoid redundancies and people felt a certain solidarity, by now they are tired of the situation since it has lasted too long. The incidence of leaving the organization due to low wages and cases of demanding a pay increase have started to occur more often since several areas of the economy have already begun to recover. Although some employees have left the organization partly due to the merging of the Police and the Border Guard which did not suit everybody, it is difficult to distinguish between the effects of organizational change and wage cuts. However, it is clear that the reorganization would have been easier to tolerate if coping with the economic recession was better handled.

Regarding the other cost cutting measures directly related to human resource management, training has decreased. There are two main reasons for this: budgetary and reorganizational. When facing the need to cut costs, training costs were cut first. In addition, in the words of Janne Pikma-Oovel, another reason in 2010 was the foundation of the new merged organization. There simply is not enough time to organize internal training seminars and those that have been organised, are mostly related to the new systems being applied (training seminars for users of the new SAP system that came into use in January 2010). The most important

changes due to the economic recession are: 1) abandoning external training; and 2) abandoning motivational and teamwork training. In sum, although the number of participations in training even increased in 2008 and 2009, the cost of training decreased by ¼ and 1/3, respectively (Table 22).

Table 22. Spending on training and numbers of participants in training for 2006–2009

	Cost (thousands of euros)				**No of participants**			
Form of training	**2006**	**2007**	**2008**	**2009**	**2006**	**2007**	**2008**	**2009**
Open training	60.8	201.9	66.2	46.1	628	1 566	899	796
Tailor-made training	84.1	241.6	159.1	82.9	3 210	2 734	3 046	3 246
In-house training	60.3	132.4	226.3	182.6	8 376	6 748	14 014	14 801
Other	72.6	35.6	0.2	0.4	736	3 977	3	32
TOTAL	277.7	611.5	451.8	312.1	12 950	15 025	17 962	18 875
Annual increase, %		120	-26	-31		16	20	5

Source: Police and Customs Board

In the opinion of the head of the labour relations department and the trade union representative, the recession has not influenced the incidence of work accidents and absences from work.

To conclude, the measures used by the Estonian Police to meet the demands of the Ministry of the Interior to cut staff costs were uniform nominal wage cuts (8%) and the use of unpaid leave. The wages were cut uniformly for senior and junior officers without making any exceptions based on gender, tenure, etc. Different prefectures used a different number of unpaid leave days because the need to save on staff costs was different. No redundancies have been made due to budgetary reasons – in 2009, this was avoided because there was no money to pay redundancy compensations, and it has not been used in 2010 because there was no need (other measures like decreasing training costs and applying unpaid leave have been used). The workload for employees has clearly increased. Moreover, lately it has been observed that people have started to leave the organization. Although this cannot only be attributed to the wage cuts and the merging of the Police Board,

Citizenship and Migration Board and the Border Guard into one institution, it is clearly apparent that people are tired of the current situation and welcome new challenges as they appear.

7. CONCLUSIONS

The Baltic States are interesting for the study of inequalities during the recent crisis because the crisis hit the Baltic States harder than any other EU member states, and the Baltics have been characterized as rather flexible labour markets with large-scale inequalities. As we saw, different adjustment mechanisms have been combined during the crisis – in an international comparison rather large drops can be seen both in employment (around -10% in 2009), working hours (-2%), wages (5–7%) and fringe benefits. Looking at the total decrease of labour costs in firms, staff cuts have been the most important. Part-time employment has especially grown in Estonia from rather low initial levels. The reduction in employment has mostly occurred due to increased job losses (separations), while the hiring rate has decreased only slightly. However, both reduced job creation and increased job closure can be seen in the firm-level data. Less job-to-job mobility is expected as people become afraid to change jobs. During the last 15 years in the Baltic States expenditures on both active and passive labour market policies have been relatively modest compared to old EU Member States (Paas and Masso 2007); however, during the crisis expenditures on both passive and active measures grew significantly also thanks to the use of EU funds.

Large-scale wage cuts deserve special attention because usually there are lots of reasons for downward wage rigidity and in some previous crises (e.g. Sweden during the 90s) wage cuts have been seen only in the case of a very small proportion of the population. In the case of Estonia, we saw that according to LFS data over a year, about 50% of employees had their monthly wage reduced. Although this number includes both base pay and bonuses, there is also substantial evidence on cuts to the base pay as well. The adjustments can be seen not only in the private, but also the public sector (especially in Latvia), which has originated from the need to

cut budget expenditures to keep budget deficits at rather modest levels (2.7% of GDP in Estonia in 2009). Still, expenditures are below the levels of old EU Member States.

The combination of different forms of adjustment could on the one hand indicate the high flexibility of the labour markets, but since the crisis has been so deep (annual GDP decline in 2009 14%–18%), it is probably not possible, for example, to make the adjustment only via employment and without wage cuts. But we also saw rather different adjustment patterns at the enterprise level, although the crisis has severely affected almost all sectors. Despite widespread wage cuts companies can be found that did not even plan to cut wages despite the economic difficulties and massive unemployment. It seems that among different expenditures related to personnel, fringe benefits (with possibly the exception of those related to families and children) were the first way to save (for those firms that offered these). One the other hand, although training expenditures were not unaffected, they were cut relatively less. There is some evidence that the crisis seems to have stimulated more flexible work arrangements at enterprise level – the use of fixed term contracts, flexible working time arrangements and pay schemes dependent on job performance. It also seems that many developments are not solely due to the crisis, but the crisis has brought these onto the agenda sooner or more thoroughly. Concerning health and safety, despite some warnings that firms struggling to survive may try to save in this area there does not seem to be any negative developments; the same applies also to work and family. Concerning the positive impacts of the crisis, firms have indicated that they have been able to be more selective in choosing applicants for jobs and have improved their pool of employees.

The different adjustment patterns at the level of individual enterprises contributed to work inequalities. Concerning the diverse impact of the crisis on various labour market segments, some aspects are similar to other European countries, such as the strong decline in manufacturing and the resulting employment decline among males. The other groups that have suffered particularly badly from the crisis are youngsters and Estonia's and Latvia's sizeable non-native (Russian-speaking) populations.

Estonia's high gender wage gap has somewhat decreased during the crisis, but only due to the component related to the different labour market characteristics of males and females. Wage inequality has somewhat increased during the crisis, and this seems to be primarily due to the increasing premium on education and the differences in wage reductions across sectors and firms. The different labour market segments have also been affected differently by different means of adjustment. For instance, in the public sector in Estonia and Lithuania there have not been so many staff cuts, but adjustments through wage cuts and working time reductions have been made.

We can conclude that the current crisis has hit the labour markets of the Baltic States earlier and more severely than most other EU countries. The responses in the economy to the crisis have been relatively successful. The total level of public debt has remained at relatively modest levels in 2010 and GDP growth rates in the 2nd quarter of 2010 were among the highest in the EU (3.1%). The crisis is likely to have a relatively long-term impact on the labour market, not only because high unemployment is likely to persist for a while and lead to an increase in structural unemployment, but it will also affect many other labour market developments. In light of the previous overheating of the economy, this has also certainly had some positive effects (e.g. the moderation of wage growth is needed to restore competitiveness), but still it has resulted in a rather difficult burden. Given the subsequent growth in unemployment and Estonia joining the Euro-zone, labour market developments remain a key challenge for ensuring growth in the future.

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Appendix 1. Policy response recovery measures in Estonia

Policy area	Description of measure(s) taken	Implementation	Objectives
Increasing aggregate demand	Increased funding in the amount of EEK 264 (ca EUR) million of transportation and entrepreneurship as a result of the re-structuring the funds of EU structural aid to support transportation investments and entrepreneurship.	In force since October 2009	Sustain employment
	Supporting starting of entrepreneurship: - Increased subsidies to start a business (from 50,000 to 100,00 EEK) and growth support (from 200,000 to 500,000) - Extension of range of eligible applicants, activities supported and eligible expenditures Decrease the self-financing rate (from 50% to 35%)	In force since September 2009	
	Entrepreneur starting a business (or a business operating up to 3 years) gets a subsidised start loan up to 1,000,000 EEK (previously up to 500,000).	In force since October 2009	Creation of new companies
Increase demand for labour	Increased funding in the amount of EEK 750 million (EIR 48 Million) of entrepreneurship (EEK 650 million) and employment (EEK 100 million) as a result of the re-structuring the funds of EU structural aid. The priorities in the area of subsidising entrepreneurship are promoting export, investments to technology and R&D. In the employment promoting area, additional funds were targeted to increase wage subsidies, trainee subsidies, remuneration of the labour market training, etc. According to the estimations made in February 2010, 1,000 new jobs were created as a result of the wage subsidies and practical training in January 2010, Ministry of Social Affairs forecasts that by the end of 2010 the number of employed due to these measures is up to 10,000.	In force since December 2009	Counter-cyclical employment measure

	In total government has channelled additional 2.3 billion kroons to support entrepreneurship and improve the labour market situation.		
	Simplified conditions to get a wage subsidy. According to new regulation, wage subsidy (50% of the wage, but on maximum the minimum wage) is paid to employer for the maximum period of 6 month if it hires • an unemployed who has been on account of Töötukassa at least 6 months and has not found a job during this time • an unemployed aged 16-24 who has been on account of Töötukassa at least 3 months and has not found a job during this time In case of non-permanent job relations, wage subsidy is paid half of the period of the duration of employment relations, but on maximum 6 months. Until 1 January 2010 it was possible to pay wage subsidy only in case of permanent job relations between employer and employee.	In force since January 2010	Increase demand for long-term unemployed Reduce youth unemployment
	For the employee or public servant who has been within the period of 12 months before getting a job unemployed at least 6 months, social tax is paid on the remuneration paid, i.e. the general minimum limit to social tax does not apply in such cases. Until this change employer had to pay social tax from the statutory minimum (in 2009 and 2010 equal to 4350 EEK) no matter whether the gross wage of the employed was for example 2500 EEK or 4350 EEK. Summarized calculation of the social tax for the employee who has several part-time jobs; until 1 July employer had to pay social tax at least from the minimum wage (in 2009 and 2010 equal to 4350 EEK)[24].	Since 1 July 2010	Increasing demand for long-term unemployed Promoting part-time employment

[24] For example, assume that the person has 2 part-time jobs. 1st employer calculates the income tax exemption and pays her 2500

	According to estimations, the number of part-time employed whose wage is less than statutory minimum of the social tax is 18,000. Their average wage is EEK 2,700. More than one part-time job has 8% of them, i.e. 1,400 employed. It is estimated that these changes influence 41,900 people, 3000 new part-time jobs will be created, the cost of these changes is 10 million EEK and the amount of additional social tax paid is 32 million EEK a year.		
Increasing employment of people and their family members who have social and economic subsistence problems	To the employer who hires a disabled person or a person who has a long-term health disturbance, up to 100% of the adjustment costs of the working rooms and means of work is compensated.	In force since January 2010	Reduce unemployment of disabled
	Labour market services and training targeted to people who have social and economic subsistence problems and their family members (part of the activities of programme „Social work measures supporting employment“: • subsistence consultation services to people with special needs and their familiesconsultation of technical aid to adjust home and workplacerehabilitation programmes (to at least 250 persons) • consultation for disabled youth who have left family or substitute home (to at least 100 persons) • training provided by National Institute for Health Development to care workers (50	In force since January 2010	

EEK, the 2nd employer pays 1500 EEK. Until 1 July 2010, 1st employer had to pay social tax from the statutory minimum (in 2010 4350 EEK), i.e. 1436 EEK, the second employer from the actual wage, i.e. 495 EEK. According to new regulation, tax obligations can be summarized. The second employer still pays social tax from the actual wage, i.e. 495 EEK, but the first employer pays the social tax from the part that is lower than statutory minimum (i.e. 941 EEK, (4350-1500)×0.33). The only requirement is that employee has to inform the 1st employer her wage in other jobs.

	persons), psychical special needs workers (125 persons) and home care workers (75 persons) • training instructing how to use social services data register targeted to local government employees and service providers (500 persons) • technical aid technician training 60 persons) • debt consultation (to 15 persons) • training for experts and consultants assessing quality of rehabilitation services		
Promoting the use of tele-working	Training of tele-working for unemployed in different areas in Estonia, developing Estonian-wide tele-working network	In force since January 2010	Promoting tele-working
Training	The training card pilot project was launched that was aimed to better train the unemployed based on their needs. The personal approach is used and trainings are targeted to increase the qualification received previously of the unemployed and increase their opportunities to get a job.	In force since September 2009	Increase skills of unemployed
	Supporting the continuing of the suspended studies	In force since January 2010	Increase number of people with professional skills and knowledge

Appendix 2 Policy response recovery measures in Latvia

Policy area	Description of measure(s) taken	Implementation	Objectives
Social policy	Increasing the period during which unemployment benefits can be received (now 8 months, previously 4 months to persons who have been made redundant and accumulated up to 9 years of service, and 6 months to persons who have been made redundant and amassed between 10 and 19 years of services. For persons who have been made redundant and whose length of service is 20 or more years, unemployment benefit was granted for 9 months)[25]. Source: http://www.eurofound.europa.eu/eiro/2009/06/articles/lv0906019i.htm	1 July 2009-31 December 2011	Increasing social insurance
	Decreasing old-age pensions and long-service pensions by 10% non-working and 70% for working pensioners. Source: http://www.eurofound.europa.eu/eiro/2009/06/articles/lv0906039i.htm	Since 1 July 2009	Decrease costs of state budget
Tax policy	Reducing tax free allowance on personal income tax to LVL 35 (€50) (up to 1 July 2009 LVL 90 (about €129)). Source: http://www.eurofound.europa.eu/eiro/2009/06/articles/lv0906039i.htm	Since 1 July 2009	Increasing tax revenues
	Increasing personal income tax to 26% (previously 23%).	Since 1 January 2010	

[25] Until July 2009, in order to receive unemployment benefit in Latvia, a person had to fulfill certain conditions, namely: they had to obtain the status of unemployed person; their length of service had to be at least one year; and they must have paid compulsory social insurance contributions for no less than 12 months in the past 18 months before obtaining the status of an unemployed person. As of 1 July 2009, however, the period of compulsory social insurance contributions for eligibility to receive unemployment benefits was changed: all employees have to pay social insurance contributions for at least nine months over a period of one year.

	Increasing the tax rate on self-employed persons (on income from economic activity) from 15% to 26%. Reducing tax-free minimum of peasants and fishermen's farms from LVL 4000 to LVL 2000. Sources: http://www.riganewstoday.com/2009/12/in-final-reading-of-saeima-has-been.html http://www.leinonen.eu/?s=75		
Decreasing state budget impalancies	Cutting state sector salaries. Salary fund was reduced by 15%. Monthly salaries below LVL 300 (€430; affecting 21% of employees in the ministries and subsidiary institutions) were reduced by 15%. Wages above LVL 300 were cut by 20%. The salary decrease was projected to reduce state expenditure by about LVL 90 million (€129 million). Source: http://www.eurofound.europa.eu/eiro/2009/07/articles/lv0907019i.htm	January 2009 Since 1 July 2009	Decrease costs of state budget
	Decreasing teachers' monthly gross wages from LVL 345 (€494) to LVL 250 (€358) Source:http://www.eurofound.europa.eu/eiro/2009/07/articles/lv0907019i.htm	Since 1 September 2009	Decrease costs of state budget
	Implementing the reform in healthcare sector and decreasing the number of employees in the Ministry of Health by 43% (from 155 employees to 89). Source: http://www.eurofound.europa.eu/eiro/2009/07/articles/lv0907019i.htm	Since September 2009	Decrease costs of state budget
Training	Implementing 3 projects to promote training: • vocational training for employees at risk of unemployment; • unemployed persons and jobseekers	Since September 2009	Increase skills of unemployed

	training in Latvia; • promoting work vacancies in local governments in order to develop and maintain work skills[26] • professional training using vouchers[27]. Source: http://www.eurofound.europa.eu/eiro/2009/11/articles/lv0911019i.htm		
Promoting Employer-side flexibility	Shortening notification terms in cases of collective redundancies. Obligation of information in case of collective redundancies was decreased to 45 days in advance (previously 60 days); right to make collective redundancies 45 days (instead of 60 days) following notification: right of the State Employment Agency to extend the term of notification up to 60 days (instead of 75 days) prior to the redundancies.	25 March 2010	Decreasing protection of workers in case of collective redundancies

[26] According to this programme, local governments provide work vacancies for non-commercial purposes in structural units of local governments, institutions and agencies, and state social support centres. An unemployed person participating in the programme 'Training for receiving and keeping work practice if the employer is a local government' receives a grant of €142 (about LVL 100 as at 23 December 2009) grant. An unemployed person who participates in the programme is insured against accidents at work as long as the terms of employment do not exceed six months a year

[27] Employees working in the private sector who, due to the reduction of production capacity, are now part-time workers can avail of training vouchers under certain circumstances – namely if they are employed for more than six months in the company and as long as their working hours have been reduced a month before applying for the programme. The voucher is a guarantee bond for an employee at risk of unemployment, enabling them to choose an educational programme relevant to their work. The training expenses will be covered by the government to the amount of €711 (LVL 500) for a professional vocational education programme and €427 (LVL 300) for a professional postgraduate education programme. The minimum duration of training is six months. The programme aims to involve at least 11,000 employees who may face the risk of unemployment up to 2013. This includes about 2,000 employees in 2009 who were at risk of losing their jobs.

	Source. http://www.labourlawnetwork.eu/national_labour_law/legislative_developments/prm/109/v__detail/ses_id__dab6d80bdb6c97c055d02bc1083c4d70/id__947/category__19/size__1/index.html For more information abour changes in Latvian Labour law, se http://www.sorainen.com/legal/newsflash/lv-employment-april-2010/en.html		

Appendix 3 Policy response recovery measures in Lithuania

Policy area	Description of measure(s) taken	Implementation	Objectives
Decreasing state budget imbalancies	Without consulting with trade unions, the government decided on 17 June 2009 to cut the basic monthly salary[28] in the public sector. The basic weekly salary was to be reduced from LTL 128 (about €37 as at 30 July 2009) to LTL 115 (€33). The pay cut was due to enter into force on 1 August and would have affected about 230,000 public sector employees, most of whom are already relatively low paid. Dissatisfied with the government's decision, the Lithuanian Trade Union Confederation (Lietuvos profesinių sąjungų konfederacija, LPSK) adopted on 19 June a 'Declaration regarding inconsiderate and unreasoned policy implemented by LRV'. As the government ignored LPSK's warning, the trade union confederation launched a hunger strike initiative on 2 July at Independence Square in front of the parliament buildings. During the hunger strike, a meeting was held between the government and the trade unions' working group which ended in a number of joint decisions. In the end, it was agreed with the trade union representatives that the government would cancel its decision to reduce the basic monthly salary with effect from 3 July. Taking into account the government's promise, LPSK stopped the hunger strike action on 3 July. In its turn, the government submitted alternative proposals to the parliament of the Republic of Lithuania (Lietuvos Respublikos Seimas, LRS) on how to reduce state spending. The proposals were accepted by the LRS on 16 July. As promised, the main burden of the salary decrease was placed on the highest paid public sector employees, including lawyers and state officers. Pay rises for civil servant qualification grades were cut on a temporary basis from 1 August 2009 to 31 December 2010: more specifically, by 10%–15% for the third (lowest) qualification rating and by 30%–50% for the first (highest) qualification rating. Officers of the country's Special Investigation Service		Decreasing public sector wages

[28] The basic monthly salary is applied as a reference to determine the salaries of public sector employees such as tutors, social workers, librarians and cultural workers.

	(Specialiųjų Tyrimų Tarnyba, STT), the State Security Department (Valstybės Saugumo Departamentas, VSD) and other civil servants have also been subject to similar changes.		
Promoting flexicurity	Providing for additional security of workers employed under fixed-term employment contracts. Fixed-term employed employees should not be applied less favourable employment conditions, qualification improvement and employees' promoting opportunities as compared to those employed under non-term employment contracts. Elaborating procedures of termination of fixed-term employment contract prior to expiry thereof. An opportunity was provided in a collective agreement to agree on cases when an employer is entitled to pay lower severance pay than the above mentioned in case of termination of a fixed-term employment contract during the period of crisis. In no event such severance pay could be less than one month's average wage of an employee29. Effective until 31 December 2010 Source: http://www.eu-employment-observatory.net/resources/reports/Lithuania-LabourCodeAmendments.pdf	1 August 2009	Regulating fixed-term employment
	Allowing employers and employees to come to terms in a collective agreement on conditions more favourable to employers as compared to those set out in the Labour Code. A list of matters with which collective agreements may deal is as follows: • Shorter dismissal notice period. Under the Labour Code, employers are required to notify employees in writing of termination of employment (without employee fault) two (and in certain cases – four) months in advance. Henceforth, collective agreements may provide for shorter time-limits, i.e. up to one or two months, respectively.	Since 1 August 2009	

[29] Previously, Lithuania labor code provided that an employer shall be entitled to terminate a fixed-term employment contract before the expiry thereof only in extraordinary cases where the employee cannot, with his consent, be transferred to another work, or upon the payment of the average wage to the employee for the remaining period of the employment contracts.

	• Shorter notice period for change in remuneration terms and conditions. Under the Labour Code, employees must be notified one month in advance of new payment conditions. The amendment allows a 2-week term to be included in the collective agreement. • The amendment allows restriction on dismissal from work to individuals with three years (rather than five, as in the Labour Code) until entitlement to old age pension. • Under the amendment, a fixed-term employment contract may, along with other grounds, be terminated with the severance pay in the amount of one month average salary. • The amendment allows employers to pay a lower salary for time out granted to search for a new job (stipulating a minimum hourly pay for time spent searching). Those changes are in force until 31 December 2010 Source: http://www.sorainen.com/legal/newsflash/employment-law-july-2009/en.html		
	Introducing the possibility for the employer to settle with a redundant employee within a term of three months (rather than on the date of dismissal as was formerly the case), but only if the employee is eligible for severance pay amounting to at least five months' average salaries. Effective until 31 December 2010 Source: http://www.sorainen.com/legal/newsflash/employment-law-july-2009/en.html	1 August 2009	
	Revision of the procedure applied to pension-age employees in case of termination of employment contracts on their initiative. This amendment was sought by the GRL to take into consideration the requests of social partners and to avoid cases of abuse often met in practice when pension-age employees enter into successive non-term employment contracts with new employers and become entitled (irrespective of the length of service with a particular	1 August 2009	

	enterprise) to termination of the employment contract in the simplified procedure (i.e., by giving a 3 days' notice to the employer) and receiving a severance pay in the amount of 2 months' average wage. Expected to stay valid for an unlimited period of time. Source: http://www.eu-employment-observatory.net/resources/reports/Lithuania-LabourCodeAmendments.pdf		
	Enacting the possibility to conclude fixed-term employment contracts for the work of permanent nature for newly created jobs. Employers will be able to take the advantage of this option for two years but not longer than for the period until 31st of July 2012. If after this date employment relationship still continues under such a fixed-term contract, it will become a non-fixed term contract. Source: http://www.deloitte.com/view/en_LT/lt/insights/publications/e6e73363ce71a210VgnVCM100000ba42f00aRCRD.htm	1 August 2010	
	Introducing summary recording of working time in any enterprise if necessary after considering the opinion of the representatives of the employees or in other cases established by the collective agreement. Prevoiusly this right was granted only to enterprises that engage in uninterrupted activity and meet the established criteria. Source: http://www.deloitte.com/view/en_LT/lt/insights/publications/e6e73363ce71a210VgnVCM100000ba42f00aRCRD.htm	1 August 2010	Regulating working time
	Changing overtime work conditions. Now employees may work four hours overtime daily. (previously four hours overtime work was allowed every two working days). The annual overtime work norm of 180 hours was not changed. Source: http://www.sorainen.com/legal/newsflash/employment-law-july-2009/en.html	1 August 2009	
	Introducing more flexible procedures for determining the overtime work. Like previously, the employer will be able to apply the overtime work only in exceptional cases. However, in other cases the overtime work may also be organized under a written consent or request of the employee.	1 August 2010	

	Source: http://www.deloitte.com/view/en_LT/lt/insights/publications/e6e73363ce71a210VgnVCM100000ba42f00aRCRD.htm		
	Establishing employees' right to suspend an employment contract for no longer than three-month period if the employer for more than two consecutive months does not pay employment remuneration or fails to comply with his other obligations to the employee. If the employee reasonably suspends the employment contract, the employer shall pay to him not less than one minimum monthly salary compensation for each month. An employee who suspends the contract with no justified reason is responsible for the damage caused to the employer. During the suspension of the employment contract the contributions to the state social insurance have to be paid therefore the employee remains covered by state social insurance. Source: http://www.deloitte.com/view/en_LT/lt/insights/publications/e6e73363ce71a210VgnVCM100000ba42f00aRCRD.htm	1 August 2010	
	Establishing a new type of employment contracts – distance work which also covers former employment contracts with home workers. A distance work employment contract may establish that an employee will perform his job functions in other places than a place of work acceptable for the employee using IT. It is expected that the distance work employment contracts will allow a more flexible organization of work. The characteristics of such employment contracts will be established by the Government and collective agreements. Source: http://www.deloitte.com/view/en_LT/lt/insights/publications/e6e73363ce71a210VgnVCM100000ba42f00aRCRD.htm	1 August 2010	

KOKKUVÕTE

Balti riikide tööturud 2008.–2009. aasta majanduskriisi ajal: mõju erinevatele tööturugruppidele

2008. aastal alanud globaalne majanduskriis on mõjutanud Balti riike iseäranis tugevalt, rohkem kui peaaegu ühtegi muud maailma piirkonda. Käesolev artikkel annab ülevaate kriisi mõjust Balti riikide tööturule erinevate tööturu segmentide lõikes. Analüüsis on tuginetud Eesti Tööjõuuuringu andmetele, intervjuudele ettevõtetega ja valdkonnaekspertidega. Lisaks kirjeldavale analüüsile on kasutatud regressioonianalüüsi analüüsimaks palkade dünaamikat ja inimeste liikumisest tööturuseisundite vahel.

Balti riikides on kasutatud valdavalt välist kohanemist (st hõive vähenemist), samas on eriti teiste Kesk-ja Ida Euroopa riikide kontekstis olnud oluline ka töötundide kahanemine ja osaajaga töötamise laienemine. Sarnaselt enamiku teiste Euroopa riikidega on käesolev kriis eriti mõjutanud meeste, aga ka noorte ning Eesti ja Läti suhteliselt suurearvulise vene-keelse elanikkonna hõivet. Kui tööjõuuuringu andmete alusel on hõive langus seotud eelkõige kasvanud hõivest väljumistega, siis ettevõtete andmete alusel on kriis ajal toimunud nii töökohtade sulgemise kasv kui nende loomise langemine. Vähenenud on töökohalt töökohale liikumised.

Võrreldes varasemate kriisidega teistes riikides on märkimisväärne palkade paindlikkus allapoole, vaatamata varasemates uuringutes ettevõtete poolt välja toodud argumentidele palgakärbete vastu. Samuti on ettevõtted säästnud ettevõttesiseste soodustuste pealt, samas kui koolituskulude osas on mõju eriti Eestis olnud väiksem. Palkade ebavõrdsus on mõnevõrra suurenenud, seda eelkõige seoses kasvanud hariduse mõjuga palkadele ning palgakärbete diferentseeritusest sektorite ja ettevõtete vahel. Meeste ja naiste palgalõhe teatud langus on olnud seotud ainult erinevate tööturukarakteristikute poolt selgitatud osaga (nö objektiivne palgalõhe), mitte selgitamata diskrimineerimise komponendiga (nö subjektiivne palgalõhe).

Lisaks erasektorile on kohandumine toimunud ka avalikus sektoris, eriti Lätis, võrreldes erasektoriga on avalikus sektoris suurem rõhk palgakärbetel ja töötundide vähendamisel. Kriis on teatud määral stimuleerinud paindlikumate töövormide kasutamisest. Samas üksikute ettevõtete tasandil on täheldatavad üsna erinevad kohandumisstrateegiad. Kriisi ajal on kasvanud kulutused nii aktiivsetele kui passiivsetele tööturumeetmetele, seda ka tänu Euroopa Liidu struktuurifondide kasutamisele.