



GROWING INEQUALITIES AND ITS IMPACTS IN THE BALTICS

Country Report for the Baltic States

Estonia, Latvia, Lithuania

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Executive Summary

The macroeconomic environment in the Baltic States during 1980-2012 has been especially dynamic having strong effects also on the changes in inequality. The beginning of transition was characterized by output decline deeper than in the other Central and Eastern European (CEE) countries. While later the average growth has been rather strong, also the volatility across the business cycles has been strong, as shown by the highest growth rates in European Union during 2004-2007 and the deepest GDP decline in 2009. The macroeconomic dynamics, like transition and business cycles, have had profound impact on the demographic processes: while the beginning of transition marked significant population decline due to declining birth rates, increasing mortality and emigration, the 2000-s saw some stabilization especially in Estonia, but the growing emigration since joining the European Union is an issue especially in Latvia and Lithuania.

During Soviet time the income inequality was low due to the low returns to education, centrally planned system aimed at achieving the equality in wages and non-labour incomes, full employment, state ownership of the means of production, negative attitudes towards private entrepreneurship and resulting low wealth inequality, and social transfers. During the first years of transition the income inequality increased vastly in Estonia, Latvia and Lithuania. This was due to the emergence of market economy, increasing unemployment, privatisation and land reforms, increasing returns to entrepreneurship, increasing returns to education (especially higher education), increasing wealth inequality and decreasing share of labour income. The youth and non-natives have been particularly vulnerable groups in the Baltic State's labour markets. The inequality stabilised in the second half of the 1990s in Estonia and Lithuania, but continued increasing in Latvia where the reform processes took more time. The second break point was in mid-2000s when the rapid economic growth started in the Baltic States. In Estonia the decrease in income inequality is observable, explained by the more rapid increase of the incomes in the lower income groups. On the other hand in Latvia and Lithuania inequality continued to increase, thereby making Estonia the least unequal country of the three Baltic States. During 2008-2012 inequality decreased somewhat in Estonia and increased in Latvia and Lithuania.

Different indicators (material deprivation, income inequality, poverty and social exclusion indicators) show different patterns and trends on inequality in the Baltic States, accordingly in case of combined indicators the values are pretty close to EU average level or somewhat higher from that. Indicators of income and material wellbeing are somewhat higher and indicators of social exclusion somewhat

lower compared to the EU average level. In Estonia most of the measures of material inequality are at somewhat lower level than in Latvia and Lithuania, but Latvia and Lithuania have the highest inequality rates in the EU. The analysis has also indicated the remarkable associations between subjective life satisfaction estimates and Gini coefficients – the higher the inequality in particular country the lower the self-estimated life satisfaction.

In the Baltic States inequality and poverty reproduce themselves. Children in poor households are unable to develop in normal circumstances, do not get enough education, are unable to participate in hobby groups, generally, they do not have the same conditions for development as children from households with better economic conditions. The attainment of higher education has been increasing in all Baltic States during last two decades; however there are problems with accessibility due to the decreasing number of state-funded budget places. The emergence of private higher education institutions and the admission of fee-paying students by public universities can be seen as source of this growth, as well as the high birth rate during the late 1980s. Still the low birth rates in the beginning of 1990s means that since the end of 2000s less competition for state-funded places in universities are making education more accessible. In Estonia, the highest educational inequality is inherent to oldest age group, and smallest in among 35-39 year olds. However, from the beginning of 1990s there is decrease of educational inequality among older age groups, but among the younger generations the changes are contrary.

Polarization of the society has changed together with macroeconomic cycles: during 2007-2008 the differences between groups were relatively small (probably related to the positive situation in labour market) and increased during the last crises (although it seems to have somewhat retreating in 2010/2011). At the same time certain groups had higher risks during all phases of the business cycles. Risk groups in the Baltic States' labour markets are first of all the people with lower level of education, people from non-native population (mostly Russian-speaking population) and especially those not commanding the official language. Their problems originate first of all from the unequal opportunities in the labour market and the resulting low incomes. In addition to them also households with children and households with low employment probability belong to the risk groups. Several surveys undertaken using the Estonian data have shown that the situation is especially difficult in households with one adult and children. The households with old-age pensioners are not as vulnerable in Estonia as pensions have increased to some extent even during the years of the crises, while in Latvia pensions stayed at the same level.

The attitudes that people in the Baltic countries hold towards inequality, political institutions, participation, and each other, should be viewed both in the light of country's Communist past, as well as the huge political and economic transformations the three countries experienced as part of

becoming democracies. The experience of state socialism left a significant demand for high levels of state provision and a tendency to blame the state for individual hardship. However, with time people in the Baltic countries have become more aware of their own responsibility for their fate. Nowadays, except for Latvia, citizens of the Baltic countries do not expect from the state more than citizens of other European countries. All Baltic countries inherited from the Communist regime extremely low levels of generalised trust, however, trust was destroyed even further by the liberal reforms of the transition and the following social and economic polarisation of the society. Increasing inequality might have also been one of the factors contributing to the large drop in the levels of political trust in the Baltic countries during the 1990s and the higher level of trust in Estonia may have contributed to its economic performance during the transition as well as the recent economic crisis.

After a period of massive political mobilisation in the Baltic States at the beginning of 1990s many became disillusioned with their new political leaders and the political process in general. The following decrease in the rates of civic and political participation and trust in institutions is often labelled as the “post-honeymoon” effect. Currently all Baltic countries are governed by right-wing (or rather centre-right) parties. However, it does not seem that the ideology of governing parties is strongly linked to policies affecting inequality.

The rise in inequality at the beginning of 1990s was also accompanied by an increase in political inequality: the drop in participation rates was the largest among the lower strata of the society. Moreover, inequality seems to be linked with voter turnout: only in Estonia where inequality is decreasing, one can observe a slight increase in voter turnout in parliamentary elections. Thus, “the weakness of civil society” in the Baltic countries (as shown by low political participation rates) could have contributed to the high levels of inequality there, since it makes it more difficult for all society groups to defend their interests or channel their demands to policy-makers. A better developed network of nongovernmental organisations might be one of the reasons why of the Estonia is currently the most equal of the three Baltic countries. To conclude, economic inequality and social polarisation in the Baltic countries are linked to a wide array of attitudes. Reducing it could contribute to a more trusting, better connected, and more efficiently functioning society.

Various labour market institutions also explain some of the labour market inequalities in the Baltic States. The impact of trade unions on wage changes and wage formation has been modest due to weakness of unions, rather low density of trade unions and low coverage of trade unions. In that light national minimum wages could be more important in the Baltic States, however their importance has been more modest, as one might infer from the percentage of workers on the minimum wage due to enforcement problems and widespread unreported income. The overall share of taxation and public spending in GDP has been in the Baltic States relatively small. The tax system

has contributed to inequality due to relatively higher share of indirect taxes, relatively low taxes on capital and relatively high taxes on labour. The fiscal austerity measures introduced during the recent crises did not contribute much to inequality. The extremely high macroeconomic volatility across the business cycles seems to dominate effects due to policy changes. The overall levels of social expenditures have been in the Baltic States at relatively lower levels that are reflected in the relatively low unemployment insurance replacement rates, lower share of pensions in GDP and limited use of active labour market policies. The expenditures on active policies increased a lot during the crises years, still due to the rapid growth in unemployment their accessibility sometimes even decreased. The social protection systems of the Baltic States do not mimic exactly any of the four European systems, though containing elements of liberal and Central European system, and have been quite dynamic.

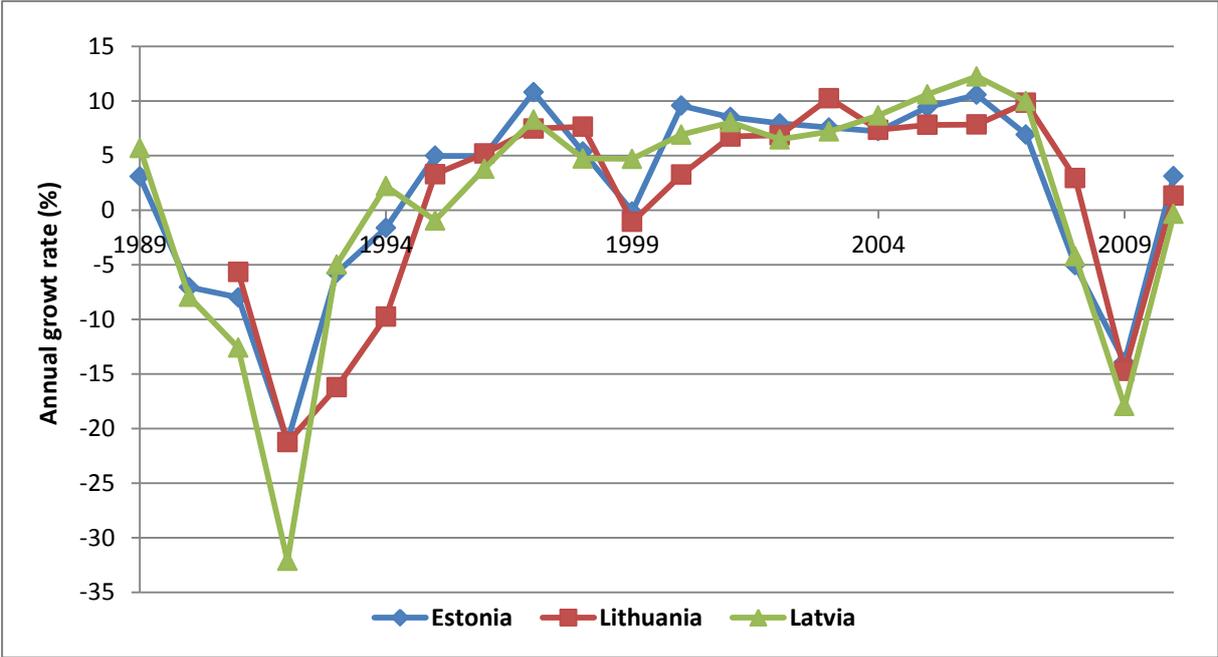
1. Introduction

1.1 The developments of basic economic indicators in the Baltic States

The macroeconomic environment in the Baltic States during 1980-2012 has been especially dynamic having strong effects also on the changes in inequality. The beginning of transition was characterized by output decline deeper than in other CEE countries; in 1992 the annual decline was -34.9% in Latvia, -21.3% in Lithuania and -14.2% in Estonia (see Table 1.1). The positive GDP growth rates were seen only since 1995 till 2008, thus the term “J-curve” for GDP developments have been used in the literature. There have been outlined several reasons for this initial deep output decline in transition countries, like the implementation of structural changes, breakdown of plan discipline leading to temporary elimination of coordination of economic activities, the shift of holding stocks of inputs to holding stocks of output, collapse of previous trade system, increased input prices (energy, oil) etc. (Eamets 2001). The Baltic States have been regarded as rather radical reformers by undergoing the transformation from planned economy to market economies very abruptly (cf. the shock therapy versus gradualist approach to transition). Yet, these developments have been accompanied also with rather high social costs – as shown by Table 1.1, while unemployment was basically non-existent at the beginning of transition, it increased rather fast to double-digit figures.

The Russian financial crisis was the cause of the first recession in the Baltic States after regaining independence. GDP declined in the Baltic countries at the end of 1998 and in 1999. The decline was deepest in Lithuania, where GDP dropped by 4% in the fourth quarter of 1999, in Estonia the decline was 1% in first and second quarter of 1999, while Latvia managed to keep even some growth all the time (in fourth quarter 1998 the GDP increased only by 0,5%). The decline of the Estonian, Latvian and Lithuanian GDP in 1998-1999 was caused by weak external demand due to the Asian and Russian crises (Masso *et al.* 2007). This was reinforced by a deceleration of growth in Western Europe, which hindered the restoration of quick general export growth to compensate for the gap resulting from the loss of the Russian export market for food products. These crises had a severe impact on the general economic conditions in all three Baltic States. Especially in Estonia, external shocks were rapidly transmitted to the economy because of the automatic adjustment mechanism that is a feature of the currency board system, severely testing the adjustment ability of the private sector. Still, Eamets *et al.* (2003a) argued that Russian crises also contributed in Estonia to the reallocation of trade from East to the West, FDI inflows, increased labour efficiency and labour-saving technical progress (that also contributed to higher unemployment) and technological changes.

Figure 1.1. GDP growth in the Baltic States, 1989-2010



Source: World Development Indicators.

During the years preceding the Great Recession (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, such high growth rates were 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), that has contributed to the depth of the following crises. The growth rates were fuelled by the inflow of credits and low interest rates that caused the real estate boom and expansion in the contraction sector (Brixiova *et al.* 2009). The high wage growth was also partly related to the increasing labour migration to the other EU countries since the joining of EU in 2004. As is shown in the following chapters, this period was still characterized by declines in some of the inequality indicators due to the lowering wage premium for education.

Table 1.1. The developments of basic macroeconomic indicators, 1993-2010

Indicator	Country	1993	1995	1997	1999	2000	2005	2007	2009	2010
GDP growth rate (%)	EE	-5.7	6.5	11.7	-0.3	9.7	8.9	7.5	-14.3	2.3
	LV	-11.4	0.5	8.3	3.3	6.1	10.1	9.6	-17.7	-0.3
	LT	-16.2	3.3	7.5	-1.1	12.3	7.8	9.8	-14.8	1.4
	EU27			2.8	3.0	3.9	2.1	3.2	-4.3	2.0
	EU15			2.7	3.0	3.8	1.9	3.0	-4.4	2.0
Purchasing power adjusted GDP per capita relative to EU27	EE		36	42	42	45	61	70	64	64
	LV		31	34	36	36	48	56	51	55
	LT		35	38	39	40	53	59	55	57
	EU27		100	100	100	100	100	100	100	100
	EU15		116	115	115	115	113	111	110	110
Consumer price index change relative to previous year (%)	EE			9.3	3.1	3.9	4.1	6.7	0.2	2.7
	LV			8.1	2.1	2.6	6.9	10.1	3.3	-1.2
	LT			10.3	1.5	1.1	2.7	5.8	4.2	1.2
	EU27			7.3	3.0	3.5	2.3	2.4	1.0	2.1
Unemployment rate (% LFS)	EE	6.6	9.7	9.6	12.2	13.6	7.9	4.7	13.8	16.9
	LV			15.1	14.3	14.4	8.7	6.0	18.2	19.8
	LT		17.1	14.1	14.6	16.4	8.3	4.3	13.7	17.8
	EU27					8.8	9.0	7.2	9.0	9.7
	EU15	10.1	10.2	10	8.7	7.9	8.3	7.1	9.2	9.6

Sources: Eurostat, ILO LABORSTA.

The economies of the Baltic States have been among the most severely affected by the global economic crisis that started in 2008; in 2009 the GDP changes were respectively -14.1, -18 and -14.8 per cent in Estonia, Latvia and Lithuania. Especially concerning Latvia, from late 2007 to late 2009 Latvia lost about 24% of its GDP in what was “the worst loss of output in the world, [...] enormous by any international or historical comparison” (Weisbrot and Ray 2011: 1-4). In 2008 and 2009 bank lending contracted significantly due to the banks’ decreased risk appetite and fear of credit losses. On top of that, the crisis was also exacerbated by the use of fixed exchange rates and very limited fiscal stimulus. The Baltic States thus responded to the crisis by an early application of fiscal austerity measures and so-called ‘internal devaluation’ (wage cuts restoring international competitiveness); that way has sometimes been described as relatively successful (for example, due to the relatively rapid recovery since 2010). That strategy has also allowed keeping the budget deficits and sovereign debts at rather low levels (see e.g. Staehr 2010), in fact Estonia has had the lowest sovereign debt in the Eurozone.

The smallness and openness of the Baltic States may have some explanatory power on why the macroeconomic volatility has been so high in the past, like high sensitivity to external shock. Still, OECD (2012) emphasizes that the high macro-economic volatility of Estonia can be seen even among the small economies. The results of Koren and Tenreyro (2010) showed that the high volatility of Estonia is due to country-specific shock affecting different sectors rather than the specialization of the economy in highly volatile sectors.

The labour share (wage share) has been in the range of 37–50 per cent recently, that is, lower than the EU15 average, which may indicate the relatively weak power of labour compared to capital like the low levels of unionisation and collective agreement coverage (Eamets *et al.* 2003b). The low labour share reflects relatively lower wages; that is, compared to the EU15 the differences between productivity levels are much smaller than those of labour costs, though this discrepancy is more noticeable in other CEE countries than in the Baltic States (Galgóczi and Mermet 2003).

Demographic processes in the Baltic States

The macroeconomic dynamics, like transition and business cycles, have had profound impact on the demographic processes (see Table 1.2). The Baltic States have faced tremendous population decline since regaining the independence (Schlitte and Stiller 2007). The Baltic States have had quite similar demographic patterns. The declining of the population has been the result of both the high emigration and low fertility rates. While in the beginning of the transition the average number of children to women was close to the reproductive level (2.1), fertility rates dropped thereafter rapidly (1.3 in Estonia, 1.2 in Latvia, 1.5 in Lithuania in 1995). In early 2000, the Baltic States had one of the lowest fertility rates in the world, caused by economic decline, uncertainty about the future, new individual challenges and opportunities, like for higher education, high labour force participation of the women (Schlitte and Stiller 2007), and postponement of marriage and childbearing for older age (Estonian Human Development Report 2010/2011). The beginning of transition marked sudden decrease in life expectancy and increase of mortality especially among the males related to the females better ability to adopt during the transition processes; later during the 2000s were remarked (especially in Estonia) increasing fertility and declining mortality. In addition to the low birth rates and increasing mortality, emigration has further contributed to the population decline. In the 1st half of the 1990s emigration was dominated by the remigration to the former USSR states of the of the Russian-speaking people that settled to the Baltic States after the Second World War caused by the perception of insecurity due to political changes (Schlitte and Stiller 2007).

Table 1.2. Basic demographics statistics, 1980-2010

Indicator	Country	1980	1990	2000	2005	2010	Change 1990-2010	Change 2000-2010
Total population, (1,000,000)	EE	1.47	1.57	1.37	1.35	1.34	-14.6	-2.2
	LV	2.51	2.67	2.38	2.31	2.25	-15.7	-5.5
	LT	3.40	3.69	3.51	3.43	3.33	-9.8	-5.1
	EU27	457.05	470.39	482.77	491.13	501.1	6.5	3.8
Share of age group 0-14 (%)	EE		22.5	18.3	15.4	15.1	-32.9	-17.5
	LV	20.4	21.4	18.0	14.8	13.8	-35.5	-23.3
	LT	23.6	22.6	20.2	17.1	15.0	-33.6	-25.7
	EU27			17.5	16.4	16.0		-8.6
Share of age group 15-64 (%)	EE		66.8	66.8	68	67.8	1.5	1.5
	LV	66.5	66.8	67.2	68.7	68.9	3.1	2.5
	LT	65.1	66.6	66.1	67.8	69.0	3.6	4.4
	EU27			68.3	68.3	68.4		0.1
Share of age group 65+ (%)	EE		10.7	15.0	16.5	17.1	59.8	14.0
	LV	13.0	11.8	14.8	16.5	17.3	46.6	16.9
	LT	11.3	10.8	13.7	15.1	16.0	48.1	16.8
	EU27			14.1	15.2	15.6		10.6
Life expectancy at birth, females	EE		74.9	76.2	78.1	80.8	7.9	6.0
	LV				76.5	78.4		
	LT	75.4	76.3	77.5	77.3	78.9	3.4	1.8
	EU27				81.5			
Life expectancy at birth, males	EE		64.7	65.2	67.3	70.6	9.2	8.3
	LV				65.4	68.6		
	LT	65.4	66.4	66.8	65.3	68.0	2.4	1.8
	EU27				75.4			
Life expectancy at birth, total	EE		69.9	70.8	72.8	76.0	8.7	7.3
	LV				71.0	73.7		
	LT	70.5	71.5	72.2	71.3	73.5	2.9	1.8
	EU27				78.5			
Total fertility rate*	EE		2.1	1.4	1.5	1.6	-20.5	18.1
	LV				1.3	1.2		
	LT	1.9	2.0	1.4	1.3	1.6	-23.6	11.5
	EU27				1.5			

Note: * - Total fertility rate: the mean number of children that would be born alive to a woman during her lifetime if she were to pass through her childbearing years conforming to the fertility rates by age of a given year.

Source: Eurostat, own calculations.

Later, especially after joining the European Union in 2004, the migration to Western Europe became important caused by the large economic disparities between the Baltic States and the old EU member states, like much lower wage rates (despite the rather high growth rates before the crises) and high rates of unemployment. The numbers are significantly larger in the cases of Latvia and Lithuania compared to Estonia. During 2004–2006 the number of workers registered in the UK per 1000 of the economically active population of the sending country (i.e. the country from which the migrants come from) was more than 35,000 for Lithuania, more than 25,000 for Latvia, but just under 10,000 for Estonia (Hazans 2008). Reasons might include the somewhat higher wages in Estonia and the closeness of Finland (many people commute between the two countries). The official migration statistics indicate that during the crisis emigration rose sharply in Latvia and Lithuania (in 2007–2009 by 77 per cent and 55 per cent, respectively), but not so much in Estonia (just 6 per cent during 2007–2009 – Philips and Pavlov 2010). However, the numbers may be greatly underestimated (up to 30-60%), because often people do not register emigration and especially in Estonia, because people working in Finland often do not change their place of residence, are hired by Estonian companies and their taxes are paid in Estonia. The evidence from the Estonian Labour Force Survey (LFS) indicates that the number of people working abroad rose from around 15–20,000 in 2007 to 20–30,000 in 2009 (Eamets 2011). On the other hand, the Baltic States have not been very attractive immigration destinations for other EU citizens or third country nationals (Philips and Pavlov 2010). Based on the analysis of LFS data for period 2002-2007 Hazans and Philips (2009) concluded that the post-enlargement migrants from all three countries have been significantly less educated while the return migrants are more educated. Similarly, Randveer and Rõõm (2009) found from the survey of Estonian firms that firms with more low-skilled blue-collar workers were more exposed to labour migration. Yet it has been found that return migrants get higher wages (Hazans 2008) and are more successful in their occupational mobility (Masso *et al.* 2012). All this bears important implications for the development of inequalities.

After the transition the life expectancy has increased considerably in the Baltic States related to improved health care, working and housing conditions, economic development. Yet considerable differences in the life expectancy of men and women are noticeable (though that has been observed also in other countries, the gap is much higher in case of the Baltic States). The abovementioned explain, why the population decline was relatively high in Latvia and Estonia in the beginning of transition (the higher share of Russian-speaking population) while the decline was lower in Estonia since 2000 (while still the highest in Latvia).

2. Evolution of inequality in the Baltic States

2.1.1 Has inequality grown?

The overall rise in income inequality after regaining the independence has been the highest in the Baltic States compared to other CEE countries. Part of the explanation of the high income inequality in the Baltic States is related to the tax and transfer policies (see Chapter 5.2). The direct taxes and public transfers have a lower role in redistributing incomes in the Baltic States compared to other CEE countries (Zaidi 2009, see also section 2.1.2). These developments have been caused by several factors like greater wage decompression, higher unemployment rates, building-up wage arrears, reduced public spending on transfers, rapid inflation, etc. (see Zaidi 2009 and Making transition work... 2000).

2.1.1 Household income inequality

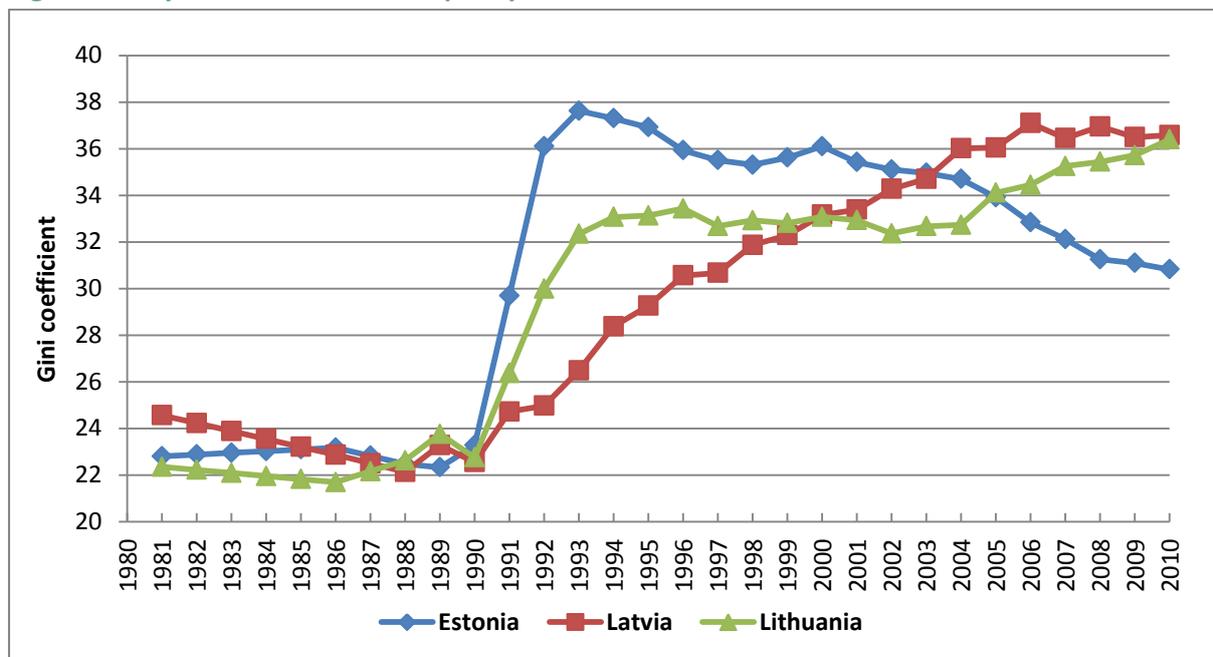
During the soviet time the household income inequality was modest in the Baltic States similar to other Soviet countries (see Figure 2.1). This was due to the centrally planned system aimed at achieving the equality in wages and non-labour incomes, full employment, and social transfers. The Baltic States were among the most successful of the formerly planned economies in regards of the transition from planned to market economy. Years 1991-1993 were characterised by the introduction of the market economy in the Baltic States, the birth of the entrepreneurship and capitalist market relations. These developments were rewarded by increase in real-income gains (Reuterswärd 2003), but also led to the social stratification. Immediately after regaining the independence the income inequality skyrocketed in all three Baltic countries, and most rapidly in Estonia where it jumped from 24% to 36%, somewhat less in Lithuania and the least in Latvia¹. The increase in income inequality was partly explained by the growing differentiation of wages according to education and other individual qualifications (Reuterswärd 2003).

The evolution of the income inequality after the structural break in the beginning of 1990s has been different in three Baltic States. Modest decrease in inequality has been observable in Estonia throughout the entire period. In Lithuania the inequality remained stable until the mid-2000s and increased after that. Latvia has experienced the continuous increase in inequality throughout the

¹ For further details about evolvement of income inequality in Latvia during 1990s see Fofack and Monga (2004).

entire period after regaining the independence. Fofack and Monga (2004) relate the increase in inequality in Latvia to rising returns to education, increased risk-rewards in the post-socialism period and limited prospects of the poor for hedging against risks and uncertainty, partly due to their limited share of assets.

Figure 2.1. Dynamics of income inequality, 1980-2011



Source: Standardized World Income Inequality Database (SWID).

The so-called Russian financial crisis that hit the Baltic economies in the end of 1990s did change trends in household income inequality. In Estonia and Lithuania the income inequality remained quite stable, while the increase continued in Latvia. As a result, in 2003 Latvia reached the Estonian inequality level and has since then showed the highest income inequality scores in comparison of the three countries. From 2005 onwards when the Baltic States experienced both the strong growth and the deep recession the Gini coefficient has increased in Lithuania, too. While in the beginning of 2000’s Estonia was the most unequal of all the Baltic countries and Lithuania the most equal, then nowadays the situation is reversed. As noted in European Commission working document (Assessment of the ... 2012), since 2011 the Lithuania has the highest income inequality among EU member states (and the 4th highest rate of the poverty and social exclusion). Around one third of Lithuania population is at risk of poverty or social exclusion since they live in households with very low work intensity or are materially deprived. As the European Commission notes, the causes of such developments have not received the required policy attention.

Inequality in Latvia stabilised in 2005, a year before parliamentary elections. This was due to the government actions: to gain popularity among potential voters, the government increased support

for farmers and social transfers (childbirth and maternity benefits, local government support) which contributed to the decrease in income inequality. The improvements, however, were short lived, and in the next year the stratification of income increased again. During this time the real estate bubble provoked sharp increase in wages and income from property, while other income, including pensions and social benefits, grew more slowly (Bičevska 2012). Inequality decreased again during the crisis, starting from 2008. This tendency which is also observable in Estonia in the last few years can be explained, for the most part, by changes in the income of retired people as opposed to the dynamics of wages. In addition, the income gap was reduced thanks to EU's direct agricultural aid, which decreased income differences between cities and rural areas. However, in 2010 additional taxes were introduced on some of the support measures in Latvia, so the net support to rural areas decreased.

The income share of the top and bottom of the income distribution tell the similar story. As can be seen from Table 2.1, the discrepancies between the share of income held by the highest and lowest decile have also increased during past decades. After regaining the independence, the share of income held by those belonging to the highest income decile, increased remarkably in Estonia, somewhat less in Lithuania and the least in Latvia which is in accordance of the developments in Gini coefficient discussed above. While in the end on 1980s the top decile held about one fifth of the total income in economy in Estonia, by 1993 it had increased almost by 15 percentage points, close to one third of the total income. In Lithuania and Latvia which started from the level very close to Estonia, the increase was approximately 10 and 3 percentage points respectively. At the same time the lowest decile lagged behind, again more in Estonia compared to Lithuania and Latvia. While in the end of 1980s the income received by the lowest decile was 4%, by 1993 it had decreased to 2.5% in Estonia.

Table 2.1. The decile income ratio and the income share of the highest and lowest decile of income distribution, 1988-2010

Country	1988	1993	1996	1998	2000	2003	2006	2008	2010
Income ratio between top and bottom deciles^a									
EE	4.4		9.4	11.9	13.2	10.8	9.0		8.5
LV	4.2		NA	8.9	NA				
LT	4.1		8.3	8	7.9				
Decile ratio^b									
EE							4.3	4.1	4.1
LV							5.4	5.7	5.4
LT							5.3	4.5	5.7
Income share held by highest 10%^c									
EE	18.4	31.4	22.7*	29.8		27.6			
LV	18.7	22.1	25.3	26.1		29.2		28.1	
LT	19.0	27.8	25.6	23.7		27.6**		29.1	
Income share held by lowest 10%^c									
EE	4.2	2.5	3.4*	3.0		2.6		N/A	
LV	4.5	4.3	2.6	2.8		2.7		2.6	
LT	4.5	3.1	3.1	3.4		2.7**		2.6	

Note: * 1995; ** 2004.

Sources: ^a Reuterswård (2003) and Kask (2011) for Estonian data 2003-2010, ^b Eurostat, ^c World Bank database (income share held by the highest and lowest 10%).

During the transition period (1993-1998) the income share of the top decile decreased slightly in Estonia and more in Lithuania, but increased in Latvia. The new millennia saw the change in this trend only in Lithuania, where it increased. By 2003 the income share of the highest decile was more or less equal in all three Baltic States at about 27-29%. Compared to 2003, the income share of the members of the highest decile remained stable during the second half of the 2000s. The share of the lowest decile has been stable or slightly decreasing throughout the whole period after regaining independence. By the end of 2000s it was rather negligible.

Trends in poverty risk

The inequality is closely related to the poverty. In this section the overview of poverty trends in the Baltic States during last two decades is provided together with the analysis of the groups most

vulnerable to poverty². The Europe 2020 strategy promotes social inclusion, in particular through the reduction of poverty, by aiming to lift at least 20 million people out of the risk of poverty and social exclusion. The Latvia and Lithuania stand out among the EU countries with particularly high share of population in the risk of poverty and social exclusion (see Table 2.2 and Chapter 3.3 for further discussion), positioning third and fourth after Bulgaria and Romania. These developments are especially worrying because of the high share of the at-risk-of poverty rate and social exclusion among children (in Latvia 42% and in Lithuania 34%) and the lack of income to finance unexpected expenditures. According to the recent Eurostat data, in 2010 in Lithuania more than 60% and Latvia almost 80% of people said they were unable to face unexpected financial expenses and these numbers have increased compared to 2009 indicating the deepening of problems. In Estonia the situation is somewhat better; the average as well as children's risk of poverty is lower and the share of those who have no funds to pay for unexpected costs slightly more than 40% (Antuofermo and Di Meglio 2012).

Table 2.2. Share of total population at risk on poverty or social exclusion, 2005-2010

Country	2005	2006	2007	2008	2009	2010
EU27	27.5	26.9	26.0	25.7	25.6	26.6
EU15	23.1	23.3	23.0	23.6	23.3	24.7
NMS	43.9	40.7	37.7	34.2	34.7	34.4
EE	28.3	23.9	19.3	19.6	24.1	23.2
LV	43.6	41.9	34.1	32.2	37.5	41.7
LT	41.7	36.0	29.2	29.7	31.2	33.5

Note: This indicator corresponds to the sum of persons who are: at risk of poverty or severely materially deprived or living in households with very low work intensity. Persons are only counted once even if they are present in several sub-indicators. At risk-of-poverty are persons with an equalized disposable income below the risk-of-poverty threshold, which is set at 60 % of the national median equalized disposable income (after social transfers). Material deprivation covers indicators relating to economic strain and durables. Severely materially deprived persons have living conditions severely constrained by a lack of resources, they experience at least 4 out of 9 following deprivations items: cannot afford i) to pay rent or utility bills, ii) keep home adequately warm, iii) face unexpected expenses, iv) eat meat, fish or a protein equivalent every second day, v) a week holiday away from home, vi) a car, vii) a washing machine, viii) a colour TV, or ix) a telephone. People living in households with very low work intensity are those aged 0-59 living in households where the adults (aged 18-59) work less than 20% of their total work potential during the past year.

Source: Eurostat.

² A good overview of different aspects of poverty in Estonia has been provided in *Poverty in Estonia (2010)* and for Latvia in Fofack and Monga (2004).

Trumm (2010) distinguishes between four stages in regards of the developments in the poverty in Estonia:

- period of transitional reforms (1989 – 1994),
- the stabilisation period (1995-1999),
- period of economic development and growth of welfare (2000-2007),
- period of global economic crisis (since 2008).

The first phase was the period of transitional reforms (1989-1994) when as a result of the breakdown of the political and economic systems and the monetary reform which resulted in inflation, decline in employment, cuts in wages and salaries, pensions and social benefits, and increase in tax rates, the incomes of the population decreased considerably. Majority of population had to give up their earlier life style and consumption habits during this period, the share of household's expenditure on food in the total consumption doubled. This led to massive poverty and deprivation, in 90% of households the expenditure on food and dwelling formed more than 60% of total consumption in Estonia at that time and only 10% of the wealthiest population could afford more than meeting the basic needs. As incomes were quite evenly distributed among households, the relative poverty was modest and almost everyone had a risk of falling into poverty. In 1994 about 70% of those who participated in the Estonian Living Conditions Survey claimed that they would barely meet basic needs (Trumm 2010)

The stabilisation period (1995-1999), characterised by fast restructuring and privatisation (in Estonia the privatisation was largely finished by the mid-1990s), was accompanied by the decrease in employment that affected mostly unskilled workers in large manufacturing enterprises and agriculture. The absolute poverty decreased during this period (see Table 2.3), the share of population who spent more than a half of their income on food, decreased twice. The relative poverty, however, remained stable. This period also saw increase in the income inequality, a clear-cut stratification developed (Trumm 2010). The benefits, however, were not equally distributed, for example the rural-urban poverty (and income³) gap as well discrepancies between socio-economic groups increased in Latvia during that time (Fofack and Monga 2004).

Period of economic development and growth of welfare (2000-2007) resulted in improvements in living conditions, material, social and physical security and higher satisfaction of life (Trumm 2010). The substantial decline in the absolute poverty rate (see Table 2.3) indicates that the economic growth impacted positively those social groups whose standard of living was the lowest. The

³ For further discussion about income inequality in Latvian regions, see Trapenciere (2005).

generally favourable economic situation meant higher employment, wages and social benefits that all supported the incomes in the lower end of the income distribution. During the boom period, just within two years (from 2005 to 2007) the share of those at risk on poverty or social exclusion decreased almost by 10 percentage points. The relative poverty, however, did not change much during this period.

Table 2.3. Absolute and relative poverty rate, 1996-2011

Country	1996	1998	2000	2002	2004	2006	2008	2010	2011
At risk of poverty rate before social transfers (pensions included in social transfers)									
EE			42.0	42.0	40.8	38.0	36.3	40.8	41.1
LV			45.0			39.6	37.1	43.7	45.7
LT			40.0			40.7	38.5	48.1	49.4
At risk of poverty rate before social transfers (pensions excluded from social transfers)									
EE			26.0	25.0	26.2	24.6	24.7	24.9	24.9
LV			22.0			27.8	30.2	29.1	27.3
LT			23.0			26.6	27.2	31.8	31.8
At-risk-of poverty rate after social transfers									
EE	19.9	19.4	18.0	18.0	20.2	18.3	19.5	15.8	17.5
LV	16.0	17.0	16.0	16.0	18.0	23.1	25.6	21.3	19.3
LT	NA	NA	17.0	NA	NA	20.0	20.0	20.2	20.0
Absolute poverty rate									
EE	39.4	32.8	28.9	25	14.8	7.6	NA	11.6	

Note: * For relative poverty rates the cut-off point is 60% of median equivalised income.

Sources: Trumm 2010 (for at risk of poverty rate after social transfers in Estonia 1996-2002 and absolute poverty rate 1996-2010); Lace 2006 (for at-risk-of poverty rate data in Latvia 1996-2002); Eurostat (for at-risk-of poverty rate data 2000-2010 and for Lithuania also 2000).

As discussed in Paas *et al.* (2004), the poverty reduction strategies and improvements in the social protection system were for the first time introduced in the Baltic States in the end of 1990s which also supported the reduction in poverty (for more details about the measures used see Paas *et al.* (2004)). This conclusion is in line with the results of the Hossain and Jensen (1999) who also found that since 1994 until the end of 1990s the income transfer programmes and social insurance were increasingly unable to match the fall in real income in Lithuania, putting some groups (like households with children) in disadvantaged position by the economic reforms.

Global economic crisis (since 2008) resulted in high unemployment rates and increase in risk of poverty or social exclusion (see Table 2.2) although the relative poverty rate poverty decreased in Estonia and Latvia and remained stable in Lithuania. These developments clearly indicate how

vulnerable were those at the lower end of the income distribution in regards of the boom-bust cycle in the Baltic States. According to the recent Statistics Estonia study “Poverty in Estonia” (2010), the increase in unemployment has been the main contributor to increasing poverty.

The Table 2.3 also demonstrates the importance of the social transfers in the Baltic States in decreasing the poverty risk. While the at-risk-of poverty rate was more than 41% in Estonia, 46% in Latvia and as high as 49% in Lithuania in 2011 (for comparison, the EU27 average was 43% in 2010 and New Member States (NMS) average 45% in 2011), after social transfers it decreases to 17.5%, 19% and 20%, respectively (EU27 average 16% in 2010 and NMS average 18% in 2011).

2.1.2 Wealth and debt inequality

Although the quality of wealth inequality data in the Baltic States is not as good as in Scandinavian countries, the discussion of some general indicators is provided in this section. In the beginning of the transition period the wealth inequality was rather low in the Baltic States since there were no private-owned enterprises. During the Soviet time the wage income made up the majority of the household income. According to 1981 income survey wage income made up 85.9%, pensions 7.8%, stipends 0.7%, private plot income 2.8%, and other money income 0.6% of the total household income in Estonia (Klesment, Sakkeus 2010). During the transition period these proportions changed tremendously. According to Milanovic (1998), while during 1987-1988 the share of non-wage private sector income in GDP was 8% in Latvia and Estonia, and 12% in Lithuania, in 1993-1994 the share increased to 10% in Estonia, 12% in Latvia and 18% in Lithuania. Still, Milanovic (1998) concluded that the change in income composition had relatively limited impact on inequality.

In the beginning of transition period the housing privatization took place in the Baltic States. In Estonia during 1991-1999 over 60% of housing stock was privatized (Yemtsov 2007). Though the study of Yemtsov (2007) did not find strong linkage between the extent of housing privatization and the change in consumption inequality, it is clear that housing privatization programmes created winners and losers depending on where people lived at the beginning of transition period.

In Latvia the reforming process was slower. Privatisation in Latvia started in the second half of 1991. By the mid-1994 privatisation was completed in only 15.8% of companies who were planned to be privatised. The privatisation of private property was even slower. By 1997 only 10% of all apartments were privatised, by 1998 – 21%, by 1999 – 48%, by 2000 – 63%, 2001 – 72%, and 2006 - 85%. The privatisation in Latvia is still not completed and the State Privatisation Agency is expected to be closed only in 2013. Denationalisation of property was, in contrast, very fast in Latvia: 68% were denationalised from 1992 till 1994, and by 1996 89% of all denationalised houses and apartments

had resituated to previous ownership rights. However, denationalisation did not increase poverty and income inequality that much, since in Latvia up until quite recently there were laws restricting the maximum rental price the owners of de-nationalised houses could ask their tenants, and not allowing them to evict their tenants if they paid at least something (Central Statistical Bureau (CSB) of Latvia 2012). The slow pace of the privatisation of the large companies slowed down the growth of unemployment at the beginning of the transition until 1994-95.

Privatisation process was launched in Lithuania in September 1991. The Parliament of Lithuania unanimously approved the model of distributional privatisation declaring that it ensures social equity and justice, helps to create the capitalist class and reduce the tensions in Lithuania, and guarantees the high speed of privatisation, success and speed of economic reforms that ensures the support of the international business community and financial institutions (Maldeikis 1996). The privatisation in Lithuania was implemented in three stages. The first stage of privatization was implemented in 1991–1995 and involved mainly voucher privatisation. Citizens were given investment vouchers worth LTL 10.5 billion (USD 2.63 billion) in nominal value. By October 1995 vouchers were used as follows: 65% for acquisition of shares; 19% for residential dwellings (95% of the apartments were privatised); 5% for agricultural properties (97% of all agricultural assets privatised); and 7% remained unused. More than 5700 enterprises with LTL 7 billion (USD 1.75 billion) worth of state capital in book value were sold. The second privatization step began in 1995 by approving a new law that ensured greater diversity of privatization methods and enabled participation in the selling process without vouchers. During the period 1996–1998 526 entities were sold for more than LTL 2.3 billion (USD 0.58 billion). The third stage started in 1997 with the establishment of the State Property Fund which was responsible for privatisation of the large state controlled enterprises (Sabaliauskaite 2000).

By the opinion of the Maldeikis (1996), in Lithuania the general public comprising the largest share (about 70-85%: pensioners, majority of workers, people engaged in such sectors like education, agriculture) of the population was rather a loser in the privatisation process because these people were mainly passive during the discussion of privatisation of the enterprises.

The land reform which was based on the restitution of previous ownership rights was also important in the Baltic States, but also privatization at quite favourable terms with the privatization vouchers was used (Rozelle and Swinnen 2004). During the 10 reforming years the individual land use increased from 4 to 63% in Estonia, Latvia from 4 to 87% in Latvia and from 9 to 85% in Lithuania. The impact of privatization of firms on wealth inequality is expected to be dependent upon the selected mode of privatization. While in Estonia and Latvia the dominant mode of privatization was direct sales to strategic owners, in Lithuania voucher privatization dominated. That may have had some

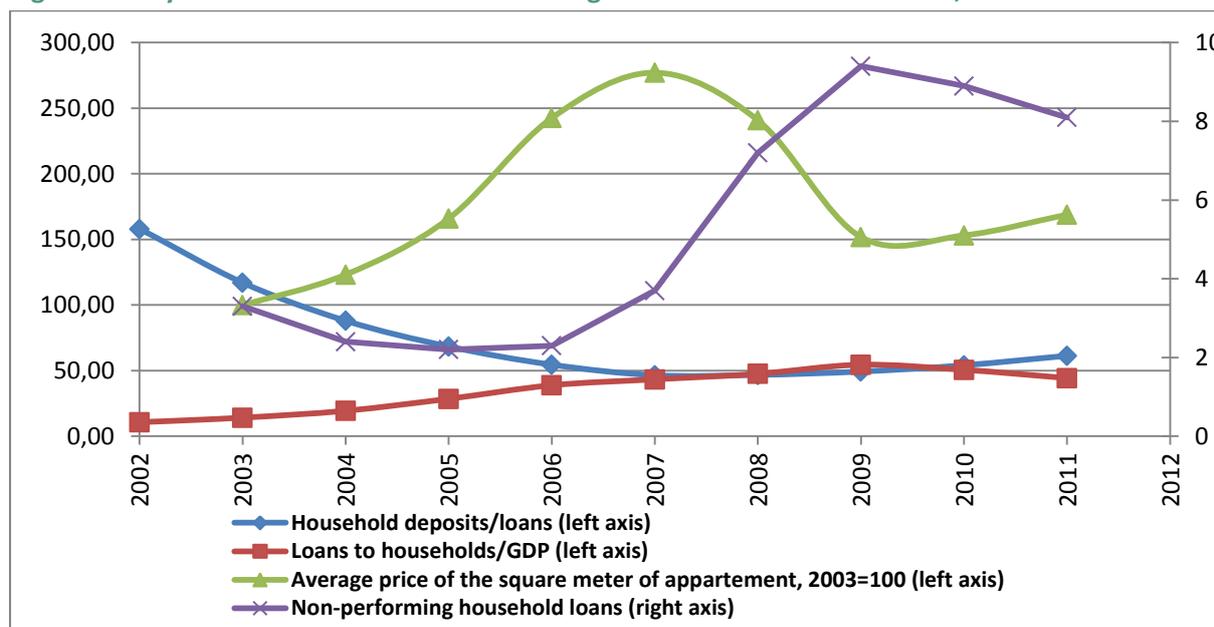
impact on the different trends in inequality: as was shown by Bonneau (2011) sales method was associated with increasing and voucher method with decreasing consumption inequality.

During the later time period, the high macro-economic volatility had large impacts also on the dynamics of wealth, both to the value of listed companies, privately owned companies and real estate. The supply of cheap credit during 2003-2007 fuelled the boom in real estate market; the house price increases in the Baltic States, especially in capital cities, were rather striking. During recession the contraction of credit and economic downturn resulted in rapid decline in real estate prices (Brixiova *et al.* 2009). The decline in real estate prices together with the rising unemployment and wage cuts resulted in the financial difficulties of many households (as shown also by the increase in non-performing loans, see Figure 2.2).

The growth of deposits lagged behind the growth of loans during boom years. During the recession, however, this trend has reversed. The recession has had an impact on wealth inequality. Even when house prices declined below the value of mortgage, people could not just get rid of their obligations by abandoning the estate. Still, although the volume of bank deposits is not small, these funds are also rather unequally distributed: according to the household budget survey in 2011 only 36% of Estonian households indicated the presence of savings; the indicator was much lower for the households with unemployed people (9.9%) and higher for households of retired people (40%). According to Latvian CSB data, in Latvia about 4/5 of households do not have savings that would amount to household's one month spending, and the situation is getting worse.

Data on income structure in Latvia shows that during the economic boom number of people receiving income from savings significantly increased: in 2001-2005 just 1.1% of inhabitants of Latvia aged 15-74 received income from savings, in 2006 – 3.2%, and in 2011 – 3.3% (Latvian CSB data). Income from saving decreased dramatically during the crisis: in Riga in 2008 the average income from savings per household member was LVL 5.42, but in 2010 LVL 1.08 – a decrease of 80% (75% on average in Latvia). In addition, as demand for property dropped, in Riga income from property decreased from 1.7% of all income in 2008 to 0.4% in 2010 (in the country on average the decrease was from 0.8% to 0.2% or by 64%).

Figure 2.2. Dynamics of indicators characterizing household wealth in Estonia, 2002-2012



Source: Bank of Estonia

The only study that has measured wealth inequality in the Baltic States is by Davies *et al.* (2008). According to the results of their study, the wealth Gini is on average level (0.67) of the developed countries in the Baltic States (on average the wealth Gini values vary from 0.65-0.75).

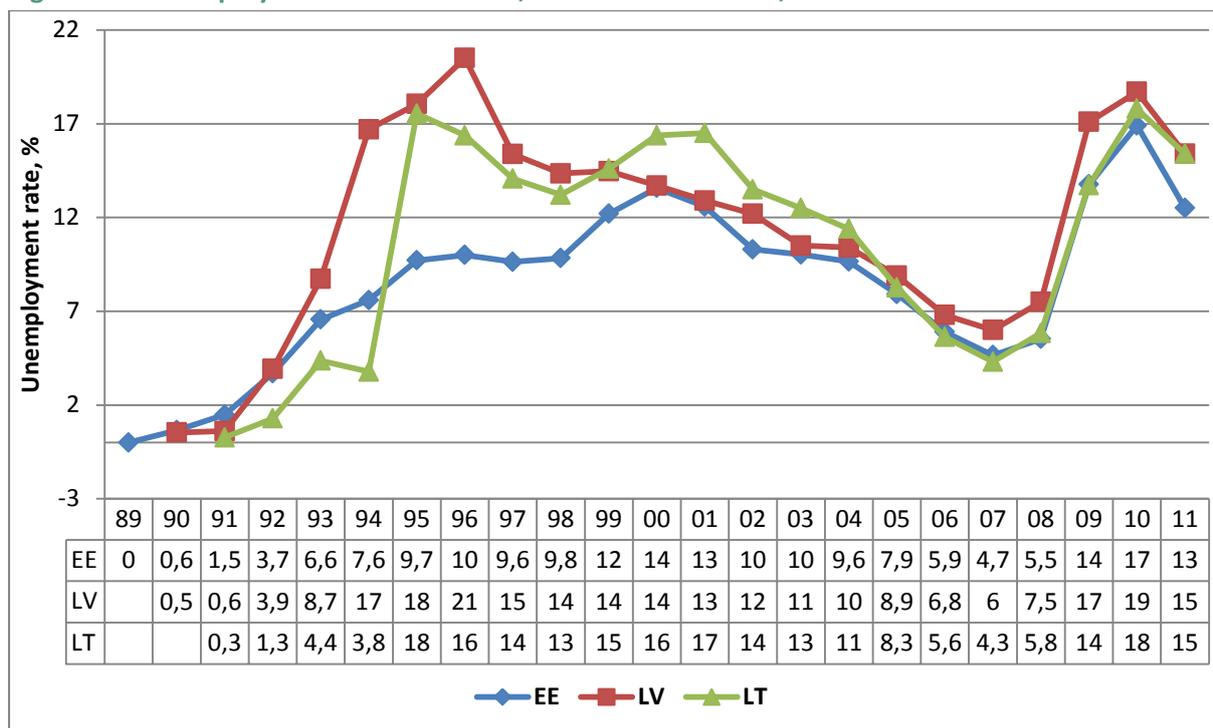
2.1.3 Labour market inequality

Trends in employment and unemployment

During the transition the large-scale employment shifts took place in the Baltic States⁴. After regaining the independence the activity as well as employment rates fell dramatically in the Baltic States and the unemployment started to increase. The slower transition to market economy in Latvia is also reflected in unemployment. While the largest increase in the unemployment in Estonia and Lithuania took place in 1991-1992, in Latvia the sharp increase in unemployment rates continued also in 1993-94 (see Figure 2.3). The unemployment continued increasing in 1995 as a result of the banking crisis, when several commercial banks went bust (most notably, Banka Baltija) and depositors lost all of their money. Small companies were affected by the banking crisis the most, and people working there were not always provided with social guarantees by their employers allowing them to receive an unemployment benefit. This contributed to further growth of poverty and inequality.

⁴ Unfortunately no data about employment and unemployment rates until mid-1990s is available for Latvia and Lithuania.

Figure 2.3. Unemployment rate in Estonia, Latvia and Lithuania, 1989-2011



Source: EBRD, Eurostat.

During the transition period in Estonia the unemployment rates were lower compared to other two Baltic States, indicating the relatively higher success of the reforms done during the transition process and the higher labour market flexibility, including the occupational mobility. 35-50% of wage earners changed occupations from 1989-1995 in Estonia (Campos, Dabušinskas 2003). In contrast, Latvia around the middle of 1990s evidenced by far the biggest unemployment in the Baltic countries, unemployment reaching to 20% in 1996.

In the beginning of the transition process, just within six years (from 1989 to 1995) the labour force decreased by 140 thousand (approximately 16%) in Estonia. This was mainly due to the emigration by the Russian-speaking population to Russia and to a smaller extent due to the increase in inactivity as a result of the introducing pre-retirement schemes (Rõõm, Viilmann 2003). At the same time the unemployment started to increase from zero level since during Soviet time the unemployment was basically non-existent. Although in absolute terms the number of unemployed increased almost to 40 000, the increase in unemployment rate was not as dramatic as in several other CEE countries. The relatively low increase in unemployment until the end of the 1990s compared to other transition countries has been explained by the greater labour market flexibility at that time (Eamets, 2001; Rõõm, Viilmann 2003).

The Russian crisis in 1998 led to an increase in unemployment rates again. It should be noted that the official statistics may not fully adequately reflect the actual situation since a lot of unemployment was „hidden”. The proportion of job-seekers did not increase in 1998-99 much in Latvia because many of those who had not been able to find a job before this crisis gave up hope to ever find a job becoming economically inactive. From May 1998 till November 1998 the number of those who had lost hope to find a job had increased by 16% (up to 50.7 thousand) (Vipule 2000). This contributed to further growth of inequalities.

Due to high unemployment rates and very weak labour unions, there was little pressure to increase wages at the beginning of 2000s. Data show that at the end of 1990s wages in manufacturing increased much more in Estonia than in Latvia and Lithuania. From 1997 till 2006 in Latvia wages increased less than two times, while in Estonia the increase was 2.5 times. At the same time, the owners of companies and other elites benefited greatly from increasing productivity and growing demand from abroad. The pressure on wages increased with the EU accession in 2004, and especially during 2006-2007 when the unemployment rates had fallen to extremely low levels. As people found it much easier to find a job and move abroad, employers were forced to increase wages in order to keep their most qualified employees. However, this situation did little to decrease inequality. On the contrary – the most qualified workers were both the most mobile and the most highly valued by their employers. Therefore, free movement of labour benefited them the most (Human Development Report Latvia, 2006), further increasing the gap between them and other society groups.

There is no clear-cut relationship between the evolution of unemployment and income inequality in the Baltic States. The relationship was strong and positive in 1990s but not statistically significant in 2000s. The correlation between the changes in unemployment rate and Gini coefficient is significant only in Estonia and for the 1990s.

Table 2.4. Correlations between unemployment rate and Gini coefficient, 2000-2010

	Unemployment rate and Gini			Change in unemployment rate and change in Gini		
	1990-2010	1990-1999	2000-2010	1990-2010	1990-1999	2000-2010
EE	0.40	0.72*	0.08	0.74***	0.93***	0.33
LV	0.34	0.86**	-0.26	-0.03	-0.23	-0.43
LT	0.41	0.71*	-0.23	0.62**	0.66	-0.11

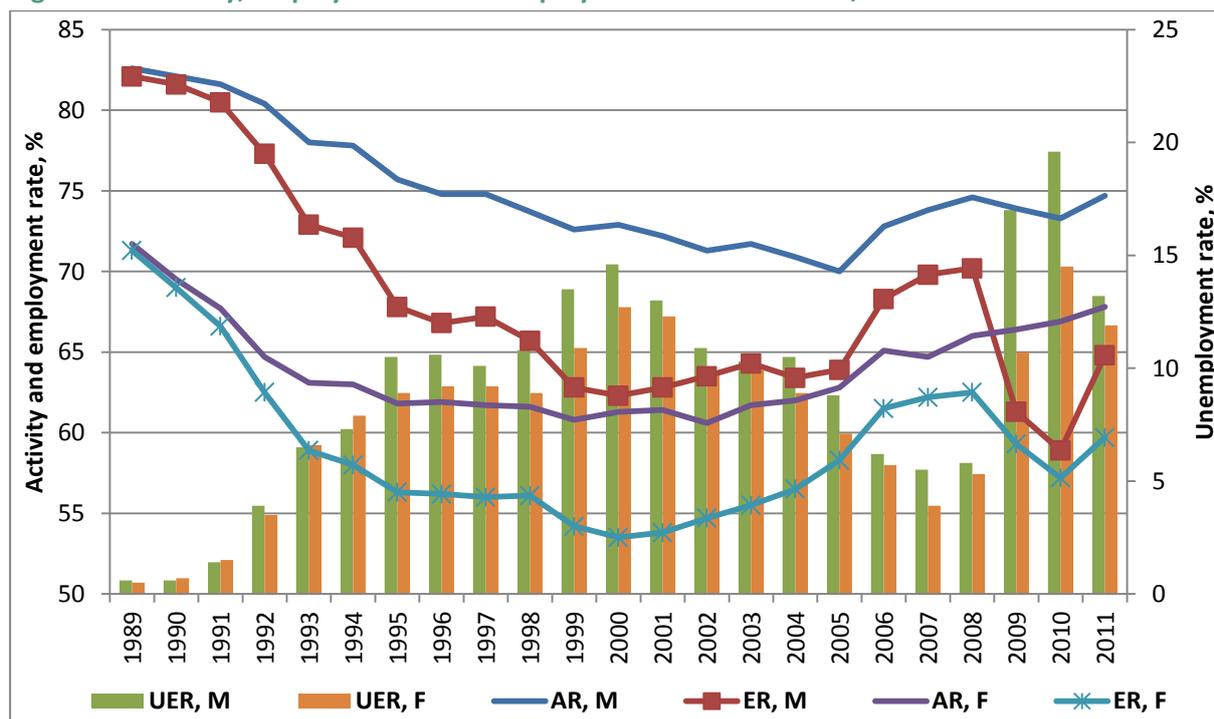
Note: ** Correlation is significant at 0.01 level; * correlation is significant at 0.05 level.

Sources: based on data provided in Figure 2.1 and Figure 2.3.

As can be seen from Figure 2.4, the female activity rate has been lower compared to males, but still high in international comparison in Estonia. A high female activity rate compared to EU27 average is a well-known phenomenon in the Baltic States. The roots of this date back to Soviet time when the state politics favoured high labour market participation of both genders. So, there is a tradition of women to work differently from, for example, the South-European countries where the women's role has traditionally been rather to be at home and take care of children. In the beginning of the transition process the activity and employment rates decreased both for men and women. The unemployment rate, on the contrary, increased. For the whole period after regaining the independence, the unemployment rate for men has been higher compared to women.

During the period 1998-2011 several trends have been observable. Compared to EU27 average, the activity rates of males were lower until the start of the last economic boom in 2006 in the Baltic States. During the recovery from the Russian financial crisis (years 1999-2001), severe economic crisis the Baltic States had experienced until the Great Recession, the male activity rate decreased in all Baltic States. In all three Baltic States the male activity rates were about 4 percentage points lower in 2001 compared to 1998. This reflects the increase in discouraged persons, i.e. increased movement from the labour market into inactivity. After that the male activity rate stabilised in all three countries and remained stable until the start of the boom period in Estonia and Latvia. In 2006-2008 the increase in male activity rate is observable in both countries, and after that the activity rate has been quite stable at about 77-78% which is comparable to EU27 average. In Lithuania the decrease continued until 2006 and since then a slight increase has been observable. Still, the activity rates have remained lower than for Latvia and Estonia.

Figure 2.4. Activity, employment and unemployment rates in Estonia, 1989-2011



Note: UER – unemployment rate, ER – employment rate, AR – activity rate, M – males, F – females.

Source: Statistics Estonia.

During 1998-2011 the female activity rates have increased in all three Baltic countries (see Table 2.5). Unlike males, the female participation rate decreased less in Latvia and Estonia during the Russian financial crisis. In Lithuania the increase was observable in 1999-2000 followed by slight decrease in next two years. The boom period in the mid-2000s brought more females into the labour market because of the overall favourable economic situation. The increase has continued since then, even during the last economic crisis that started in 2008. This indicates that the role of the women as second breadwinners has increased in last 5-6 years. It is probably due to the increased loan burden of the households on the one hand and the sectorial composition of the crisis effects on the other.

During the recessions the male-dominated sectors have contracted more and the male employment rate decreased rapidly in 2009 compared to 2008 in Latvia and Estonia. The Lithuania was hit a year later. Among females the employment decrease was much more modest during the beginning of the crisis. However, those were just the short-term fluctuations, with the recovery of the economy the male employment rate also recovered. Still, the male-female unemployment gap has decreased in recent years. More discussion about development of the Baltic labour markets during the recent recession and measures used to cope with the negative effects can be found in Masso and Krillo (2010).

Table 2.5. Activity, employment and unemployment rates by gender, 1998-2011

	1998	2000	2002	2004	2006	2008	2010	2011
Activity rate (%), males								
EE	79.0	75.6	74.6	74.4	75.8	78.3	76.8	78.1
LV	76.4	72.7	74.1	74.3	76.2	78.6	75.8	76.5
LT	78.2	74.5	73.6	72.8	70.5	71.4	72.4	74.3
Activity rate (%), females								
EE	66.4	65.3	64.4	66.0	69.3	70.1	71.0	71.5
LV	63.9	62.1	63.9	65.3	66.7	70.5	70.7	70.2
LT	66.5	67.3	65.8	65.6	64.6	65.5	68.8	69.7
Male-female activity gap (%)								
EE	12.6	10.3	10.2	8.4	6.5	8.2	5.8	6.6
LV	12.5	10.6	10.2	9.0	9.5	8.1	5.1	6.3
LT	11.7	7.2	7.8	7.2	5.9	5.9	3.6	4.6
Employment rate (%). males								
EE	69.9	63.7	66.2	65.8	71.0	73.6	61.5	67.7
LV	64.4	61.9	63.6	67.4	70.4	72.1	59.2	62.9
LT	66.4	61.1	64.3	65.2	66.3	67.1	56.8	60.9
Employment rate (%). females								
EE	60.9	57.2	57.6	60.3	65.3	66.3	60.6	62.8
LV	55.6	53.3	57.6	57.4	62.4	65.4	59.4	60.8
LT	58.1	58.2	57.2	57.8	61.0	61.8	58.7	60.5
Male-female employment gap (%)								
EE	9.0	6.5	8.6	5.5	5.7	7.3	0.9	4.9
LV	8.8	8.6	6.0	10.0	8.0	6.7	-0.2	2.1
LT	8.3	2.9	7.1	7.4	5.3	5.3	-1.9	0.4
Unemployment rate (%). males								
EE	10.7	14.9	10.4	11.7	6.3	5.9	19.9	13.4
LV	15.6	15.3	15.1	9.4	7.6	8.3	21.9	17.9
LT	15.6	18.5	13.4	11.2	5.9	6.1	21.5	18.0
Unemployment rate (%). females								
EE	8.6	11.7	8.9	9.0	5.8	5.4	14.7	12.1
LV	13.7	13.6	11.7	10.7	6.3	7.2	16.0	13.3
LT	12.0	14.0	13.0	11.6	5.5	5.7	14.6	13.2
Male-female unemployment gap								
EE	2.1	3.2	1.5	2.7	0.5	0.5	5.2	1.3
LV	1.9	1.7	3.4	-1.3	1.3	1.1	5.9	4.6
LT	3.6	4.5	0.4	-0.4	0.4	0.4	6.9	4.8

Source: Eurostat.

Further details about hidden unemployment in Estonia during the transition period can be found in Eamets, Ukrainski (2000) and during the Russian financial crisis in Ukrainski, Eamets (2004). Eamets (2004) has analysed the worker flows between employment, unemployment and inactivity during the Russian crisis in the Baltic States and Hazans (2005) has analysed Latvian case in more detail. Hazans (2005) finds that after the crisis the type of education and region of residence were the most important factors determining the success in finding a job when getting laid off.

Table 2.6. Unemployment rates by age groups, 1998-2011

	1998	2000	2002	2004	2006	2008	2010	2011
Age 15-24								
EE	14.9	23.5	17.3	23.5	12.0	12.0	32.9	22.3
LV	27.0	21.3	25.6	19.3	12.2	13.1	34.5	29.1
LT	25.2	28.6	20.4	21.2	9.8	13.4	35.1	32.9
Age 25-49								
EE	10.1	12.7	8.3	9.1	5.6	4.7	15.4	11.8
LV	13.1	14.0	12.2	8.0	6.1	7.2	17.0	13.9
LT	12.8	15.4	12.4	9.8	4.8	4.9	16.8	14.1
Age 50-64								
EE	5.9	10.5	10.1	7.4	4.5	4.7	15.5	11.2
LV	11.7	12.0	10.5	10.9	6.4	6.4	16.7	14.3
LT	10.1	12.6	12.4	12.6	6.6	5.3	14.8	13.8

Source: Eurostat.

Similar to many other EU countries, the high unemployment rate among young people (i.e. age group 15-24) has been the challenge for policy makers in the Baltic States. The youth unemployment has been a continuous problem, but it has increased especially severely during the recessions. Here, again, Estonia has fared better than other two Baltic countries, but still in 2010, the youth unemployment rate exceeded 30% in all three countries. While in the beginning of the period the unemployment rate was lower for the elderly (age group 50-64) compared to middle-aged (age group 25-49), the recent economic crisis has worsened the labour market prospects of both groups and their unemployment rates have reached similar levels. It is especially worrying in the light of the increasing long-term unemployment among elderly.

Table 2.7. NEET rates among young people (aged 15-24), 2000-2011

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
EU27	13.2	12.8	13.0	13.0	12.8	12.6	11.7	10.9	10.9	12.4	12.8	12.9
EE	14.5	14.3	10.3	10.2	12.1	10.2	8.8	8.9	8.8	14.9	14.5	11.8
LV	N/A	N/A	14.3	11.5	10.9	10.0	11.1	11.8	11.4	17.4	17.8	15.7
LT	17.0	16.0	11.8	10.3	10.9	8.6	8.2	7.0	8.9	12.4	13.5	12.5

Source: Eurostat.

The picture is quite similar when comparing the unemployment rates across educational level (see Table 2.8). The most vulnerable group are those with a low educational level (levels 0-2). Compared to university graduates, the unemployment rate has been about twice higher in this group and clearly pro-cyclical. For example, while during the recent recession the unemployment level increased about 4-6 percentage points among those with university degree and 10 percentage points among those who had upper and post-secondary education, the increase among those whose educational level was lower secondary or less, was about 17 percentage points.

Table 2.8. Unemployment rates by highest level of education attained, 1998-2011

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Pre-primary, primary and lower secondary education (ISCED levels 0-2)														
EE	16.6	20.9	26.4	19.9	20.0	18.8	21.1	15.3	13.5	11.7	12.2	29.9	32.4	27.4
LV	21.0	19.1	22.5	22.2	24.0	17.6	16.6	15.8	14.9	10.8	14.6	31.4	32.3	28.0
LT	20.3	20.7	25.7	24.9	19.2	22.4	14.9	15.1	10.6	7.7	13.7	30.9	41.1	39.5
Upper secondary and post-secondary non-tertiary education (ISCED levels 3 and 4)														
EE	10.5	12.7	14.8	13.4	10.3	12.5	10.7	9.3	6.3	4.9	5.9	16.1	19.6	13.0
LV	15.3	15.1	14.9	13.2	13.0	10.3	10.6	9.2	6.3	5.9	7.7	18.7	20.4	17.6
LT	17.2	16.4	20.3	19.5	14.5	13.8	12.8	9.4	6.5	5.1	6.7	16.4	21.9	19.2
First and second stage of tertiary education (ISCED levels 5 and 6)														
EE	5.1	6.0	5.0	8.0	4.7	5.4	6.0	4.0	3.3	:	3.0	6.4	9.5	8.2
LV	7.2	6.1	7.4	5.6	6.6	6.3	3.6	4.2	3.8	3.7	4.2	8.4	10.5	6.8
LT	8.5	8.9	9.4	7.4	6.8	6.4	6.8	4.1	2.6	2.1	3.0	6.1	7.8	6.4

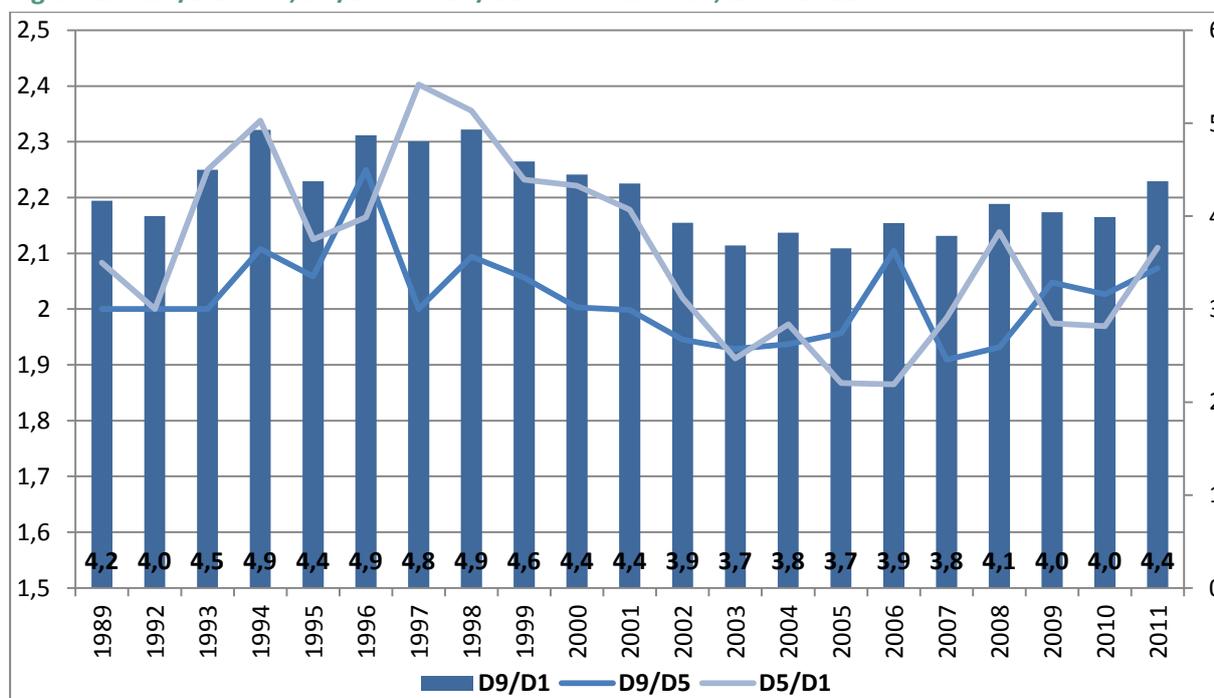
Source: Eurostat.

Wage inequality

As the wage comprises a majority of income in most individuals, the wage inequality is the main source of income inequality. Unfortunately there is no comparable data available for long time period wage inequality across wage distribution in Eurostat for the Baltic countries. Therefore, we use calculations from Estonian LFS to give a picture of the longer-term developments dating back to

the end on the 1980s. In the following figure three ratios have been presented: D9/D1 ratio (i.e. the ratio between the highest 10% and lower 10% of wage earners), D9/D5 ratio (i.e. the ratio between highest 10% and median wage earners) and D5/D1 ratio (i.e. the ratio between median and lowest 10% wage earners).

Figure 2.5. D9/D1 ratio, D9/D5 and D5/D1 ratio in Estonia, 1989-2011



Note: outliers have been removed, based on hourly data; D9/D1 ratio (on the right panel of the vertical axis), D9/D5 (on the left panel of the vertical axis) and D5/D1 ratio (on the left panel of the vertical axis).

Source: Estonian LFS, authors' calculations.

The wage inequality across wage distribution has not been stable. It increased after regaining the independence (from 1992-1994), mostly because the lowest part of the wage distribution lagged behind while the wages in the middle- and upper-part of the wage distribution evolved quite the same and the wage ratio about 2-2.1. Therefore, we can conclude that those in the lower end of the wage distribution were the 'losers' during the period of vast restructuring and introduction of market economy. The D9/D1 ratio increased from 4 in 1992 to 4.9 in 1994. From the mid-1990s until the eve of the Russian financial crisis the wage discrepancies between the highest and the lowest 10% of the wage earners remained quite stable. The D5/D1 ratio increased and D9/D5 ratio decreased during that period indicating that those in the middle of the wage distribution fared relatively better.

During the Russian financial crisis and following recovery wage discrepancies decreased. The D9/D1 ratio decreased from 4.9 in 1998 to 3.7 in 2003. The decrease in D5/D1 ratio was more remarkable (from 2.4 in 1998 to 1.9 in 2003) than the decrease in D9/D5 ratio (from 2.1 to 1.9). As recorded by

Eamets (2004), unlike many other countries, the average wages decreased in Estonia in some sectors during the Russian crisis and the evolution of the wage ratios indicates that the adjustments were relatively more beneficial to the low-wage earners. However, the boom that started in mid-2000s increased the wage discrepancies somewhat in favour of the high-wage earners and during the recent recession the D9/D1 ratio remained unchanged, increasing quite remarkably in 2011 that remarks the year of recovery.

As a result of the current economic crisis, the wages have decreased in the Baltic States. Due to increasing unemployment rates and decreasing wages, on average income from wages per one member of a household has decreased (for example, in Latvia 20% in 2008-2010). Income from social transfers per person, on the other hand, has increased (almost 30% in Latvia (Latvian CSB data)). These developments have contributed to a slight decrease in inequality in Latvia and Estonia during this time.

Table 2.9. Decile ratios of the annual earnings, 2006 and 2010

	2006			2010		
	D9/D1	D9/D5	D5/D1	D9/D1	D9/D5	D5/D1
EE	4.4	2.2	2.0	4.1	2.1	2.0
LV	6.0	2.4	2.5	4.6	2.2	2.1
LT	4.6	2.2	2.1	4.3	2.1	2.0

Note: in 2006 NACE rev 1.1: C to O not L included, full-time employed, enterprises with 10 employed persons or more; in 2010 NACE rev 2: B to S not O included, full-time employed, enterprises with 10 employed persons or more.

Source: Eurostat structure of earnings survey 2006 and 2010.

The gender pay gap has been remarkable in Estonia during the whole period after regaining independence. The high gender pay difference in the 1980s was not exceptional in Estonia, but rather characteristic to other socialist countries (Noorkõiv *et al.* 1997). The main reason for gender wage gap in the Soviet system was the segregation and the fact that men were more frequently promoted compared to women. In the Soviet system people were sent to job in a centralised way (i.e. state provided jobs for everyone) and this resulted in large gender segregation both across occupations and sectors. In 'female' occupations and sectors the wages were much lower when compared to 'male' occupations and sectors (Rõõm, Kallaste 2005 and Klesment and Sakkeus 2010). Wage inequality in Latvia is high at the moment, however during the crisis and up to mid-2011 there was a tendency for it to decrease. Specifically, the amount of highest 20% of wages significantly decreased (Bičevska 2012).

Similar to other ex-socialist countries the gender pay gap showed a downward trend during 1990s, stabilising at about 24-25% from 2000-2005. The decrease in gender pay gap was due to the structural changes in the labour market that favoured female-oriented sectors where higher education was highly valued (Rõõm, Kallaste 2004). During the transition period the wage differences increased and employment rates decreased in most CEE countries, including the Baltic States. These developments favoured females because the relative demand for higher-educated employees increased faster compared to lower-educated workforce. This change was beneficial for females because in CEE countries on average the female educational level was higher. Secondly, during the transition period females dominated in sectors that grew faster during the transition process, in Estonia, the demand decreased in male-dominated sectors (Orazem and Vodopivec 2000). Still, as Vöörmann (2000) shows, in the mid-1990s women had lower wages in all occupations compared to men.

Rõõm and Kallaste (2004) have analysed gender pay gap in Estonia during the Russian financial crisis 1998-2000. They found that about third of the wage gap was explained by gender differences in human capital and job characteristics (age, ethnicity, ability to speak Estonian, marriage status, existence of children, whether the person is the head of the household, education, working hours, tenure, ownership of the company, size of the company, occupation, sector, region, female concentration in the occupation and in the sector) and thus the unexplained part constituted about two third.

Table 2.10. Gender pay gap in unadjusted form, 1994-2010

	1989	1994	1996	1998	2000	2002	2004	2006	2008	2009	2010
EE	34**	29	27	26	25	24	24	30	31*	27*	NA
LV		NA	NA	20	20	16	14	15	13,4	14,9	17,6
LT		NA	22	22	16	16	16	17	21,6	15,3	14,6

Note: in 2006 break in series.

Source: Eurostat, * Aspal et al. (2011) for data in Estonia 2008-2009; ** Noorkõiv et al. (1997) for data in Estonia in 1989.

Since the start of the boom in mid-2000s, the gender pay gap has increased again. In 2007 it was as high as 31%, the highest in the EU. What has been rather exceptional is the increase in the gender pay gap since 2000s (see Anspal, Rõõm 2010). Anspal and Rõõm (2010) have analysed the reasons for the gender pay gap in Estonia, based on LFS data 2000-2008. They conclude that the explanatory factors (gender, level of education, field of study, age, ethnicity, being married/cohabitating, number of children, hours worked, occupation, being a trade union member, number of subordinates, company ownership, company size, sector of activity and location) explain only a small part of the

wage gap, the unexplained part forming 85% of the pay gap. They also point out that the part of the gender pay gap is caused by the concentration of Estonian's female and male employees in different sectors and occupations and one reason for the increasing gender pay gap is the increase in segregation. They come to a conclusion that if there were equal number of female and male employees in all occupations, the average gender pay gap would decrease by 32%. In other two Baltic States the gender pay gap has been more modest.

2.1.4 Educational inequality

During the last three decades the enrolment in education has been quite stable in Estonia. However, a clear shift towards increasing participation in higher education has been observable (see Table 2.11), enrolment in tertiary education has almost tripled.

Table 2.11. Enrolment in formal education per 10,000 inhabitants in Estonia, 1980-2011

Level of education	1980	1985	1990	1995	2000	2005	2010	2011
Total	1 920	1 894	1 832	1 931	2 233	2 068	1 821	1 774
General education	1 473	1 459	1 435	1 539	1 596	1 345	1 093	1 067
... basic school level	1 159	1 200	1 233	1 282	1 318	1 032	844	836
... secondary school level	314	259	201	256	278	313	249	232
Vocational education	275	281	232	205	225	216	210	202
Higher education	172	154	165	191	412	507	518	505
... professional higher education						155	165	155
... vocational higher education					41	1		
... diploma study				43	125	18		
... Bachelor study				126	204	221	206	198
... integrated Bachelor's/Master's study						26	31	30
... Master's study				18	32	72	95	98
... Doctoral study				4	11	15	22	23

Source: Statistics Estonia.

The enrolment in education has been higher for females compared to males in the Baltic States (see Table 2.12). The participation in the education has increased considerably in all three Baltic States. While in the late 1990s about half of the young (aged 15-24) males in Estonia and less than a half of males in Latvia and Lithuania were engaged in studies, by 2010 the decrease had been about 6 percentage points in Estonia, 12 percentage points in Latvia and 18 percentage points in Lithuania. The similar conclusion applies to females.

Table 2.12. Enrolment in education by gender, age group 15-24, % of corresponding age population, 1998-2010

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Males													
EE	51.3	53.6	56.5	57.6	58.4	57.8	58.7	59.6	58.6	57.7	55.8	55.7	57.7
LV	45.5	48.7	50.8	55.2	58.5	59.5	61.2	61.0	60.4	57.8	56.0	57.1	57.2
LT	47.3	51.8	56.6	60.5	62.5	65.1	66.0	67.2	66.1	65.2	65.4	65.8	65.8
Females													
EE	57.7	61.2	65.1	66.7	67.8	67.3	67.4	68.0	67.5	66.6	66.0	66.0	66.6
LV	54.6	58.0	60.3	63.7	65.9	66.5	68.5	68.8	68.5	67.4	66.2	67.1	65.2
LT	54.6	59.5	63.8	67.8	69.6	71.1	72.2	73.7	73.1	72.3	72.8	72.9	72.9

Source: Eurostat.

Compared to EU average, the educational level of the population is higher in the Baltic States. During last ten years the share of those with lower-secondary level education and decreased in all Baltic States (see Appendix 2.1). Paulus (2004a) has analysed the educational inequality in Estonia during 1959-2000. According to the results of his study, the availability of education improved in Estonia in the second half of the 20th century and the length of the studies have become longer. During 1959-2000 the share of those with pre-primary or primary education decreased and those with secondary and tertiary education has increased. The educational Gini⁵ has decreased almost by half, from 0.330 to 0.183. There are differences observable in average study time by the place of residence, the human capital is concentrated to the cities, the gender and ethnic differences are smaller. The educational Gini, however, is higher for those living in rural areas, for women, for Estonians and for elderly.

Scale of returns to education

The economy in Soviet Union was in many aspects very different from the advanced market economies. The wages were set centrally and were not directly linked with supply and demand of skills, including education. Therefore, there were virtually no returns to education during that time (Philips, 2002; Leping, Toomet 2007). Concerning the wage distribution based on the data from the 1981 year income survey, the wages across different levels of education were rather equal - e.g. 200 roubles for those with higher education, 178 for those with primary education (difference 11%)

⁵ Educational Gini was calculated based on the indicators characterising the education obtained (estimated number of school years).

(Klesment, Sakkeus 2010). As noted by Noorkõiv *et al.* (1998), in 1989 the university graduated workers' wages were only 8% more and primary educated workers 3% below than national average.

After regaining independence educational wage premiums increased and relative earnings of university graduated workers rose dramatically during transition. The results of the Mincerian wage equation indicates that while the returns rose for all education groups, the increases were the highest for those with the higher education. Within only five years, the wage premium for university educated (compared to primary educated workers) rose from 11% to 69% (Noorkõiv *et al.* 1998). The changes were very rapid, most adjustment occurring by 1992.

Hazans (2003) analysed returns on education in three Baltic States based on LFS data. He used data from 2000 and found that employees with higher education earned on average 69% more than those with basic or less education in Latvia and 80% more in Estonia and Lithuania. He found that most of this premium is associated with higher education, the return being lowest in Latvia and highest in Lithuania. His result, that the wage premium on tertiary education is high in international comparison, is in accordance to the recent study by Badescu *et al.* (2011). The premium associated with the secondary education relative to basic education was much smaller, ranging from 13-14% in Latvia and Lithuania to 19% in Estonia and much lower compared to developed economies and other CEE countries (Hazans 2003; Badescu *et al.* 2011).

Hazans (2003) also found that ethnic minorities gain much less from higher education compared to ethnic Estonian, but the ethnic gap was not statistically significant in other two Baltic States. This was also found by Leping and Toomet (2007) based on Estonian LFS data for 1995-2001. This trend was observable already in the beginning of the transition process: Noorkõiv *et al.* (1998) found that while in 1989 the foreign-borne workers' wages were on average just 3% lower compared to native-born Estonians, the relative wage gap increased to 11% by 1993 and 22% by 1995.

The similar results were found by Torgo (2007) who analysed the effect of education on individual earnings in Estonia. She used LFS data for 2001-2004 and found based on Mincer's human capital earnings function that taking a compulsory education as a base, the average return of the secondary education is 20% and the higher education 60%. The males gain on average 25% more than females. There is also a strong language effect observable: individuals whose first language is Estonian gain on average 18% more compared to those whose first language is not Estonian.

Anspal *et al.* (2011) have also found (using Estonian LFS data during 2002-2009) that returns to education are large in Estonia, especially for tertiary education – the relative wage gain for employees with tertiary education compared to those who have upper secondary education is on

average 30% for males and 35% for females and wage gain for those with upper secondary compared to lower secondary is 4% for males and 10% for females.

2.2 Why has inequality grown?

In the Soviet system people were treated quite equally and there were no unemployment as well as wage discrepancies observable neither by gender, age or nationality. This situation changed completely after the Baltic States regained its independence. This was mainly due to the structural changes that occurred in the economy. The shift from agriculture to industry and the increase in services sector has contributed to the male-female wage gap and ethnic discrepancies. Compared to women, men have been concentrated to sectors and jobs where higher wages are paid. Therefore, even though on average women are better educated, they receive wages approximately 70% of that of men. In the Baltic States attention has been only recently paid to gender equality promoting measures. Unlike the Nordic countries, there have been no strong interventions aimed at achieving gender equality in the labour market.

The ethnic employment and wage gap is also to a great extent stemming from the sectoral and occupational segregation of the workforce. Those (especially older) people, who have not integrated into the society and cannot speak Estonian, have difficulties in finding jobs.

The youth unemployment has been a problem that the Baltic governments have been faced since the regaining of the independence. Especially those with poor education face difficulties when trying to find jobs because jobs are increasingly requiring specific skills. In other words, the skill-biased technological change poses at risk of unemployment, poverty and social exclusion those whose skills are not in accordance with the demand and who do not modernize their skills via lifelong learning.

2.3 Conclusions

During last two decades the Baltic States have experienced rapid economic changes. The transition from planned to market economy influenced inequalities to a large extent. During the Soviet time the income inequality was low due to the low returns on education, centrally planned system aimed at achieving the equality in wages and non-labour incomes, full employment, and social transfers.

During the first years of transition the income inequality increased vastly in Estonia, Latvia and Lithuania. This was due to the transition processes together with increasing unemployment, privatisation and land reforms and increasing returns on entrepreneurship and education. The

inequality stabilised in the second half of the 1990s in Estonia and Lithuania, but continued increasing in Latvia where the reform processes took more time. The second break point was in mid-2000s when the rapid economic growth started in the Baltic States. In Estonia the decrease in income inequality is observable that is explained by the more rapid increase of the incomes in the lower income groups.

The returns to education have increased tremendously in the Baltic States in last two decades. The education and skills/experience have become the main determinants of labour market success in the Baltic States. Those with higher education have much better labour market possibilities, both in terms of employment and wages. Those with lower education face much higher risk of unemployment and social exclusion, leading to poverty risk. The sectoral shifts that have occurred during last two decades and labour market segregation have favoured men, better educated and qualified people and those who can speak official language.

Young have become a particularly vulnerable group in the labour market. While in the Soviet system there was a centrally governed system of engaging the youth in the labour market activities in the early years, this system collapsed after regaining the independence. The youth access to the labour market has become more difficult. The non-natives are a vulnerable group in the Baltic States labour market. The transition from centrally planned to market economy resulted in structural shifts in the economy. The sectors where (mainly Russian) minority dominated (like mining) shrank. As a result, the non-native people who become unemployed faced in particularly difficult situation because due to the poor language skills their retraining prospects were rather poor. In the last decade the Baltic States have paid attention to this problem, trying to better integrate the minorities into the society.

3. The Social Impacts of Inequality

3.1 Introduction

Material deprivations, poverty, social exclusion as a social phenomenon are essentially influenced by the processes going on in the society. Dramatic social developments which took place in the CEE countries during the last decades have brought along an extremely rapid growth and spread of inequality, poverty and social exclusion since the end of the eighties and beginning of the nineties of the past century as well as a rapid growth in the living standard and a significant decrease in absolute poverty and material deprivation during 2003–2008. The fact that poverty and material deprivation are closely related to the general economic and social development of the society is also confirmed by a remarkable growth in the poverty risk and material deprivation in 2009 and 2010. In Chapter 2.1.1 four stages suggested by A. Trumm (2010) in regards of development in material deprivation and poverty of the past twenty years (1989–2009) were briefly discussed. The following drivers in trends of inequality, poverty, material deprivation in different periods are as following (the same tendencies and drivers apply also for Latvia and Lithuania) (Trumm 2010):

A period of transitional reforms (1989–1994), when during some years, the consumption structure underwent a drastic change — the share of households' expenditure on food in the total consumption increased nearly twofold, and the share of expenditure on dwelling increased fivefold (Kutsar and Trumm 1995). The poor economic situation was evenly distributed and collectively shared, resulting in generally low living standard and in a high absolute poverty risk. As the incomes of households had been distributed rather evenly, the rate of relative income poverty was quite modest. During the first stage of transitional period, no clear social structure or risk factors of poverty could be revealed — almost anyone could fall into poverty due to the emergence of unfavourable circumstances.

Stabilisation period (1995-1999) - is characterized by a fast restructuring and privatisation of the economy, accompanied by a decline in employment and a continuously growing unemployment. The share of the long-term unemployed kept growing, comprising almost a half of all unemployed population during the last years of the referred period. Long-term unemployment was mostly characteristic of the periphery regions of rural areas and the cases, when practically all working-age population of a region were unemployed, were not rare at all. Such a situation involves extremely high risks causing a large loss in the human capital and capacity for work (Eamets 2001). A rapid

economic growth and restructuring of the economy brought along the differentiation of incomes and a widening gap in material inequality which stood high during the entire observed period. A clear-cut vertical stratification developed, while younger persons and those with a higher educational level were mostly the ones who managed to be adaptable. The same can be said about the persons whose social activeness and enterprising spirit were not restricted by insufficient knowledge of the official language, poor state of health or family commitments. Elderly population, persons with a lower level of education and non-Estonians comprised the largest share of those who were unable to adapt to changes and were exposed to the risk of social exclusion (Kutsar 1997). Clear-cut risk groups could be distinguished among the poor: the unemployed and the households with an unemployed member, families with many children and single-parent families, disabled persons and the elderly. For the poor population, the period of poverty lengthened and 'exit from poverty' became more complicated than earlier (Kutsar *et al.* 1998).

A period of fast economic development and growth of welfare (2000-2007) - positive impact that the economic growth considerably improved living conditions, enhanced material, social and physical security as well as the satisfaction of life more fulfilled than earlier. As a result of positive economic growth, increased incomes and improved situation on the labour market, the structural risks of poverty decreased and the absolute poverty rate declined considerably. Thus, it can be concluded that the positive impact of economic growth reached even the social groups with the lowest standard of living by widening remarkably their consumption opportunities and reducing their rate of material deprivation (see Chapter 3.2)

A period of global economic crisis (2008 - ...) - As a result of the breakdown of financial sector, economic growth was replaced by a rapid downturn and drastic increase in unemployment. Although the share of persons with low level of education and insufficient qualification is continuously large among the unemployed, persons with higher level of education who have so far felt secure on the labour market are also in danger of losing a job. During 2009, the number of households subject to subsistence benefit was increasing immensely. The number of loan and leasing debtors, predominantly among young people with higher education and better income, also grew quickly. The latter formed a new untraditional risk group of poverty. One of the central thesis of the risk society concept, i.e. "everyone can be affected by social risks", is becoming a reality.

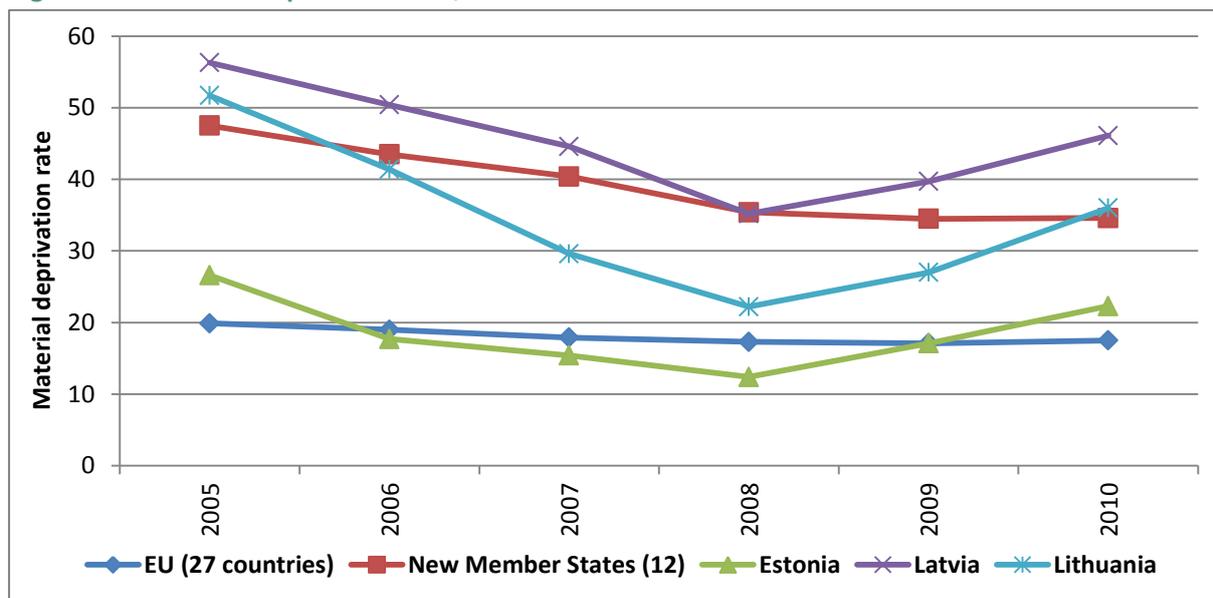
3.2 Patterns and trends in material deprivation

For monitoring the Social Open Method of Coordination, EU countries and the European Commission have adopted commonly agreed indicators and the most recent list was adopted in 2009. A major

novelty in this most recent list is that it now includes measures of material deprivation. The rationale for this inclusion is that if purely income-based indicators of poverty and inequality are essential, they are nevertheless not sufficient to satisfactorily reflect the diversity of living conditions in the EU (especially since the 2004 and 2007 enlargements). Material deprivation can be defined as the inability to possess the goods and services and/or engage in activities that are ordinary in the society or that are socially perceived as “necessities”. These indicators of material deprivation aggregate information focused on some key aspects of material living conditions; they do not aim at covering all the dimensions of poverty and social exclusion (i.e., health, employment, education, social participation, etc.). (Guio *et al.* 2010) The key data sources available to capture levels and trends and make comparisons between three Baltic countries in material deprivation is the large-scale survey EU-SILC running from 2005 (in Estonian case from 2004) to 2010.

Figure 3.1 shows that basic deprivation was declining in all Baltic States from 2005 to 2007, was down in 2008 and then started to increase again since 2008. This was followed by substantial increases in 2009 and 2010 as the recession deepened, however, by 2010 the levels of basic deprivation did not reach the level of 2004. As can be seen from Figure 3.1, the Latvian material deprivation rate is highest among the Baltic States and it is even higher than average rate of EU new member states. Lithuanian material deprivation rate was also higher than deprivation rate of EU new members states before 2005, but during the economic boom years, the material deprivation rate declined relatively fast and in 2008 was quite close to the average rate of the EU27 countries. During the crisis the material deprivation rate increased again in Lithuania and in 2010 was again higher than the deprivation rate for EU new member states. Among the Baltic States the lowest material deprivation rate is in Estonia and during the economic boom years the rate was even lower than the EU average. However, during the economic recession, the material deprivation rate started to increase like in other Baltic States and in 2010 was higher than the EU average for 27 countries. These tendencies are quite similar to the tendencies described in the case of income and wage inequalities in the Baltic States (see Chapter 2).

Figure 3.1. Material deprivation rate, 2005-2010



Notes: People are considered materially deprived if they experience at least 3 out of 9 deprivations: people cannot afford to i) pay their rent or utility bills, ii) keep their home adequately warm, iii) face unexpected expenses, iv) eat meat, fish, or a protein equivalent every second day, v) enjoy a week of holiday away from home once a year, vi) have a car, vii) have a washing machine, viii) have a colour tv, or ix) have a telephone.
Source: Eurostat (EU SILC).

Material deprivation rate is higher for females in all Baltic States and the biggest differences are observable in Latvia and the smallest in Estonian case. The gap widened in the economic boom years and narrowed again during the economic recession years.

Table 3.1 presents the material deprivation rate by different age groups in the Baltic States. In all three countries the material deprivation rates of young people (less than 18 years) and working-age adults (from 18 to 64 years) are almost equal and the highest deprivation rates in Latvian and Lithuanian case are for older people (65 years and over). In Estonian case the material deprivation rate for oldest age group was also higher before and during the economic growth years, while during the economic recession years the material deprivation rate is lower than for other age groups. In Latvian case also the gap between different age groups has declined since 2008, while in Lithuanian and Estonian case the differences among age groups have remained unchanged over the observed period.

Table 3.1. Material deprivation rate by sex and age groups, 2005-2010

Country	2005	2006	2007	2008	2009	2010
Male						
EU27	19.1	18.3	17.1	16.5	16.5	16.9
NMS	46.6	42.7	39.6	34.6	33.6	33.6
EE	25.4	16.1	13.5	11.6	16.6	22.0
LV	53.5	47.4	41.7	33.0	38.4	44.3
LT	50.0	39.4	27.6	20.7	25.5	35.2
Female						
EU27	20.6	19.8	18.7	18.1	17.7	18.1
NMS	48.2	44.2	41.1	36.2	35.4	35.5
EE	27.7	19.0	16.9	13.1	17.4	22.5
LV	58.7	52.9	47.1	37.1	40.9	47.6
LT	53.2	43.3	31.4	23.6	28.2	36.8
Less than 18 years						
EU27	22.2	21.6	20.0	19.8	19.6	20.4
NMS	49.0	44.9	41.9	36.7	37.4	37.8
EE	27.2	18.5	14.3	12.8	19.8	24.6
LV	53.4	47.8	43.3	36.0	41.6	48.5
LT	50.8	39.0	28.6	21.6	24.9	35.2
From 18 to 64 years						
EU27	19.5	18.7	17.7	17	17.1	17.5
NMS	45.5	41.6	38.5	33.5	32.7	32.9
EE	25	16.5	14.4	11.7	16.8	22.9
LV	53.9	47.9	41.5	31.5	37.4	44.5
LT	49.4	39.9	27.8	20	25.4	34.5
65 years and over						
EU27	18.4	17.1	16.3	15.4	14.3	14.0
NMS	54.5	50.1	46.9	42.5	39.3	38.0
EE	32.0	21.4	20.3	14.8	14.9	17.3
LV	69.4	63.5	58.8	49.6	47.2	49.5
LT	62.7	51.3	38.6	32.0	35.9	43.4

Source: Eurostat (EU SILC).

Table 3.2 describes the depth of material deprivation – the number of items lacked by the materially deprived population. On average, people in NMS (including Latvia and Lithuania) are more materially

deprived than the population in older member states or in EU on average. In Estonia, people are even less materially deprived than in the EU on average. The depth of material deprivation has remained almost unchanged after the minor decline between 2005 and 2006.

Table 3.2. Depth of material deprivation, 2005-2010

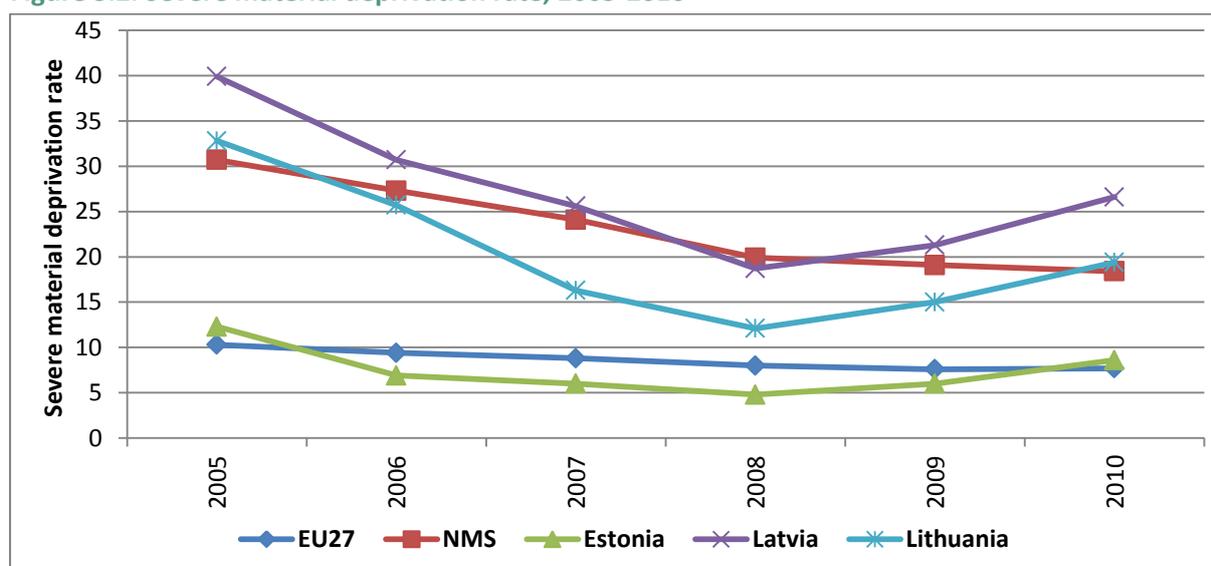
Country	2005	2006	2007	2008	2009	2010
EU27	3.9	3.9	3.9	3.8	3.8	3.7
NMS	4.3	4.2	4.2	4	4	4
EE	3.8	3.6	3.6	3.6	3.6	3.6
LV	4.4	4.1	4	4	4	4.1
LT	4.2	4.1	4	3.9	3.9	3.9

Note: The indicator is defined as the un-weighted mean of the number of items lacked by the materially-deprived population (at least three out of the nine items retained for the definition of the 'Material deprivation rate' indicator).

Source: Eurostat (EU SILC).

The same tendencies as in Figure 3.1 but at lower level appear, when to look the severe material deprivation rate (people are considered severely materially deprived if they experience at least 4 out of 9 deprivations) from Figure 3.2. During the years of economic growth severe material deprivation rate declined quickly and especially sharp decline is observable in Lithuanian and Latvian case from 2006 to 2008. The severe material deprivation rate is increasing again since economic recession, but didn't reach the level of 2005.

Figure 3.2. Severe material deprivation rate, 2005-2010



Notes: People are considered severely materially deprived if they experience at least 4 out of 9 deprivations.

Source: Eurostat (EU SILC).

Table 3.3 shows that levels of reported material deprivation are highly structured in terms of education, being much higher for those with lower levels of attainment. During the economic growth years the deprivation rates declined at all educational level and more remarkably in the higher levels of educational attainment, since 2009 the material deprivation is raising at all educational levels and in all Baltic States the increase is surprisingly higher for higher educational levels and modest for lower levels of educational attainment.

Table 3.3. Severe material deprivation rate by educational level, 2005-2010

Country	2005	2006	2007	2008	2009	2010
Pre-primary, primary and lower secondary education (levels 0-2)						
EE	21.9	11.6	11.6	10.1	10.9	14.3
LV	54.5	47	41.8	31.5	34.7	38.3
LT	43.9	39	26.5	21.3	25.8	29.8
Upper secondary and post-secondary non-tertiary education (levels 3 and 4)						
EE	11.7	7.1	5.7	4.7	6.2	9.1
LV	39.1	29.8	23.1	17.1	20.4	27.6
LT	34.4	25.9	16.8	11.6	14.6	20.1
First and second stage of tertiary education (levels 5 and 6)						
EE	5.7	3	2.4	1.1	2.4	4.1
LV	20.2	13.9	11.9	7.9	8.9	11.5
LT	16.3	11.5	6.4	5.2	5.3	8.9

Source: Eurostat (EU SILC).

Table 3.4 shows that levels of reported material deprivation are also highly structured in terms of income (especially in Lithuania and Latvia) with those in the bottom quintile of the distribution having much higher rates than others. During the economic growth years the deprivation rates converged in all Baltic States and in the Lithuanian case the gap was diminishing the most. However, in the recession period the deprivation rates started to increase and especially in the first two income quintiles from the bottom saw particularly sharp increases.

Table 3.4. Severe material deprivation rate, by income quintile, 2005-2010

Country	2003	2004	2005	2006	2007	2008	2009	2010
Total								
EE	:	9.5	12.3	7.0	5.6	4.9	6.2	9.0
LV	:	:	38.7	30.5	24.7	19.1	21.9	27.4
LT	:	:	32.5	25.3	16.5	12.4	15.1	19.6
First quintile								
EE	:	24.9	32.1	22.4	19.7	15.9	17.9	27.3
LV	:	:	66.9	55.9	52.0	48.4	44.6	58.6
LT	:	:	64.7	53.1	40.5	29.2	34.4	38.2
Second quintile								
EE	:	12.7	17.5	7.7	4.8	4.9	6.1	8.8
LV	:	:	53.2	45.5	33.9	23.0	31.8	33.6
LT	:	:	42.0	35.4	20.0	19.0	20.7	24.1
Third quintile								
EE	:	7.4	8.7	3.7	2.3	2.1	3.3	4.8
LV	:	:	38	29.8	18.8	13.6	17.9	25.5
LT	:	:	30	20.8	14.5	9.0	12.6	19.6
Fourth quintile								
EE	:	1.8	2.5	0.9	1.3	1.1	2.8	3.4
LV	:	:	25.1	14.1	13.3	7.3	10.7	13.8
LT	:	:	20.0	12.8	5.8	3.2	5.1	10.3
Fifth quintile								
EE	:	1	0.8	0.4	0.1	0.3	0.9	0.7
LV	:	:	10	7.2	6.2	2.9	4.7	5.5
LT	:	:	6.0	4.4	1.9	1.3	2.6	5.7

Notes: Income is equalised disposable household income.

Source: Eurostat (EU SILC).

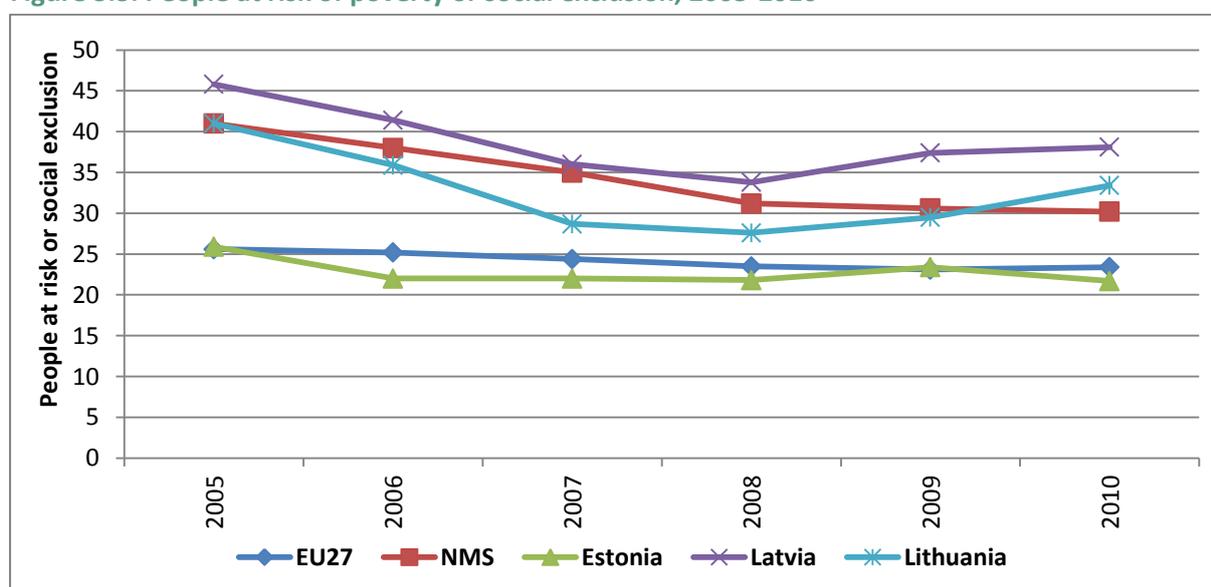
3.3 Cumulative disadvantage and multidimensional measures of poverty and social exclusion

The Europe 2020 strategy promotes social inclusion, in particular through the reduction of poverty and social exclusion. Target to combat poverty and social exclusion, is based on a combination of three indicators: the number of people considered “at-risk-of-poverty”, the number of materially

deprived persons (discussed in Chapter 3.2), and the number of people aged 0-59 living in “jobless” households.

Figure 3.3 (see also Chapter 2.1.1) describes the tendencies in the compound indicator of people at risk of poverty or social exclusion in the Baltic States. People in Latvian and Lithuanian case experience higher risk of poverty or social exclusion than Estonian inhabitants. While in Latvia and Lithuania the indicator declined during the economic growth years and started to increase again during the economic recession, then in Estonian case the indicator has been almost unchanged (minor decline is observable between 2005 and 2006) over the observed period. This compound indicator shows that Estonia was less influenced from the cyclical behaviour of economy than Latvia and Lithuania.

Figure 3.3. People at risk of poverty or social exclusion, 2005-2010



Note: This indicator corresponds to the sum of persons who are: at risk of poverty or severely materially deprived or living in households with very low work intensity. Persons are only counted once even if they are present in several sub-indicators⁶.

Source: Eurostat (EU SILC).

Females experience higher risk of poverty or social exclusion than male in all Baltic States; the differences were highest in 2008 and have almost disappeared by 2010 (see Appendix 3.1, for more discussion in Estonian case see Randoja 2010). Comparing different age groups it shows that risk of

⁶ At risk-of-poverty are persons with an equalised disposable income below the risk-of-poverty threshold, which is set at 60 % of the national median equalised disposable income (after social transfers). Material deprivation covers indicators relating to economic strain and durables. Severely materially deprived persons have living conditions severely constrained by a lack of resources; they experience at least 4 out of 9 deprivations items. People living in households with very low work intensity are those aged 0-59 living in households where the adults (aged 18-59) work less than 20% of their total work potential during the past year.

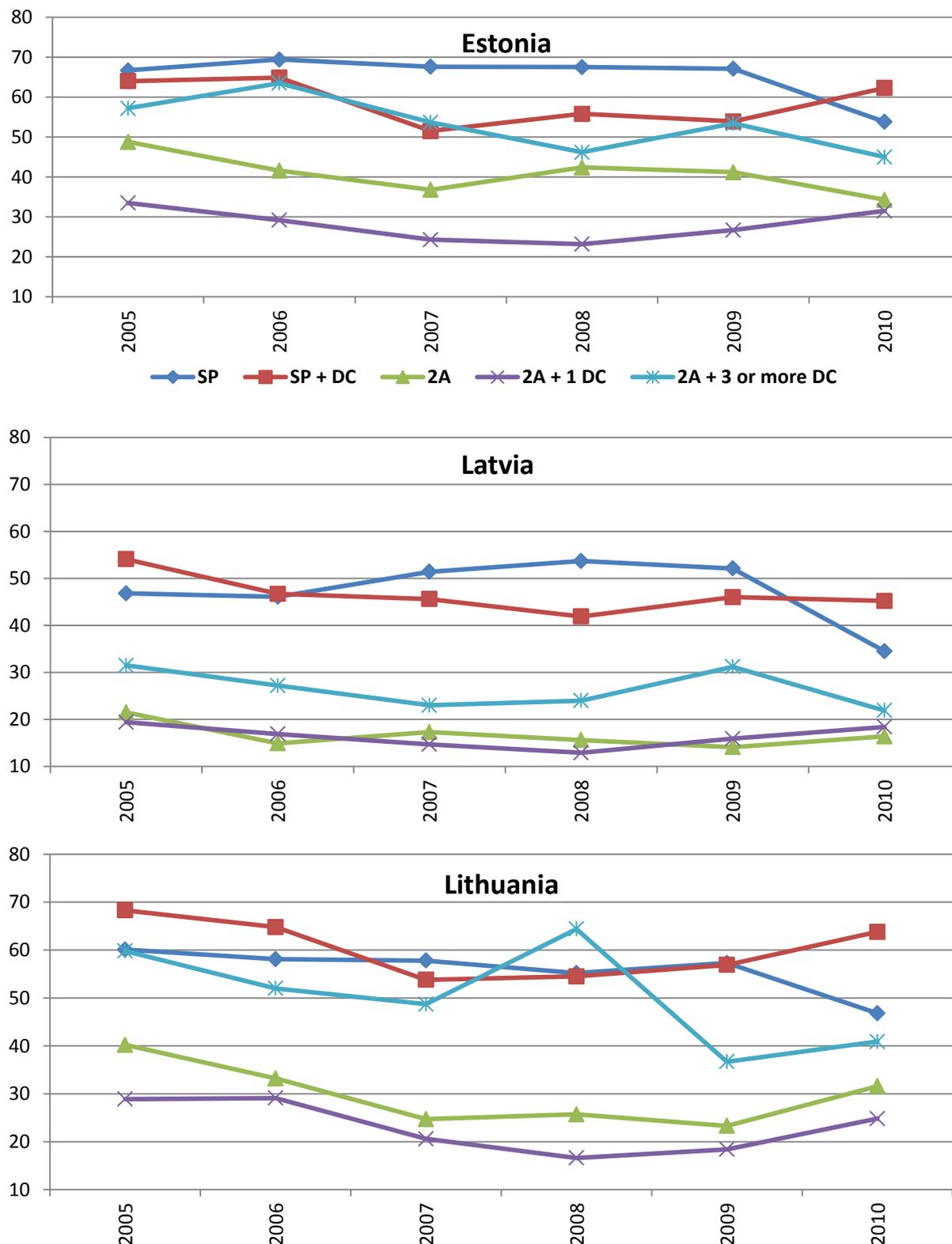
poverty or social exclusion is higher for (households with) children than for working-age adults (most remarkable differences are observable in the Latvian case), however, the risk of poverty or social exclusion is even higher for elderly (bigger differences observable in Latvia and Estonia). In all Baltic States, remarkable changes have been reported in 2010, when the lowest risk of poverty or social exclusion is observable in the oldest age group (65 years and over) and the highest for (households with) children.

If to analyse the risk of poverty or social exclusion by different educational groups, then it can be concluded that those with lowest levels of educational attainment are much more likely to be in this group than others. Although the risk of poverty or social exclusion rate has decreased among the population with the lowest (pre-primary, primary or lower secondary) educational level, the share of those at risk of poverty or social exclusion is still striking: in 2010 about 33% in Estonia, 45% in Lithuania and more than 50% in Latvia. Among university graduates these numbers are much lower, about 10% in Estonia and 17% in Latvia and Lithuania. The high-school graduates are in-between these two extremes with at-risk-of-poverty or social exclusion rates about 23% in Estonia and 36-38% in Latvia and Lithuania. Some relatively minor increases are observable during the recession years in some educational groups: the highest increase however is in Lithuanian case among people at higher and medium educational attainment level (comparing 2010 with 2009 the increase in the ISCED 5-6 group was 48% and in the ISCED 3-4 group 27%).

Across the household types clear differences are observable and the picture is not similar in three Baltic States. In all three countries in the best position are two-adult households without children or with one child. The children and elderly have higher risk of poverty compared to those in the working age (Eomoi 2007). In these household types the poverty or social exclusion risk rate is about 15-20% in Estonia and Lithuania, but much higher in Latvia (about 20-30% in households with a dependent child and 50% in 2-adult households, for the latter the poverty or social exclusion risk has decreased considerably since mid-2000s). In the other extreme are single-person households where at risk of poverty or social exclusion rates are much higher – in some year in Latvia and Lithuania even close to 70%. This reflects the differences in the social transfer systems.

Another important conclusion to be made based on Figure 3.4 is that in different households the poverty or social exclusion risk rates have not evolved similarly during boom-bust cycle.

Figure 3.4. People at risk of poverty or social exclusion by household type, 2005-2010



Note: SP – single person, SP + DC - a single person with dependent children, 2A – two adults, 2A + 1 DC – two adults with one dependent child, 2A + 3 or more DC - two adults with 3 or more dependent children.

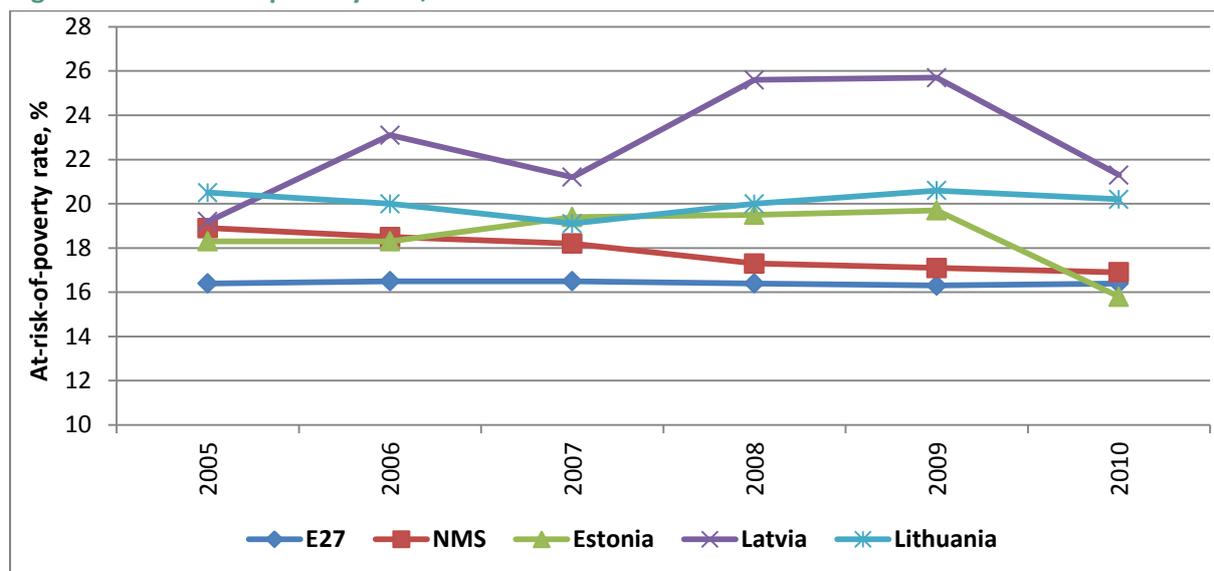
Source: Eurostat.

In Estonia, for example, the single-person-household poverty risk has decreased during the recession, but the poverty risk for households with children has increased. As also emphasised by Tiit (2010), unfortunately there are no detailed data that would enable to take a closer look at the influencers of the developments on the household level. In Latvia the discrepancies are somewhat lower, but the poverty or social exclusion rates are remarkably higher when compared to Estonia. In Latvia the two-adult households with one dependent child are in the best and the single-person households in the worst position. Similar to Estonia, in Lithuania two groups can be distinguished, but these are somewhat different than in Estonia: two-adult without children or with one child have considerably lower risk rate compared to single-person households and those households where there are 3 or more children.

Trends in at-risk-of-poverty rates

If to analyse the at-risk-of-poverty rate separately, then a relatively different picture appears. Figure 3.5 describes the trends in at-risk-of-poverty rate between 2005 and 2010 in the Baltic countries and average figures for EU and new member states. While in the previous figures and tables the Estonian position was comparable with the EU average level or was even lower, then if to look at-risk-of-poverty rate, then it is even higher than the average rate for the new member states in majority of years; surprisingly rapid decline is observable only in 2010. Latvia has again the highest at-risk-of-poverty rate and the increase in the rate was quickest at the beginning of economic recession than in other Baltic countries, however, the rate has declined by 2010 and is comparable with the Lithuanian at-risk-of-poverty rate. In Lithuania the at-risk-of-poverty rate declined by 2007 and started to increase again during the recession years, only minor decrease is observable in 2010. The decrease in at-risk-of-poverty rate was due to increased pensions and governmental benefits in 2009, but also due to a fall in people's incomes which meant that, for the first time in ten years, there was a decrease in poverty threshold. Compared to 2008, poverty threshold fell by 24 euros per month. In the years of economic growth, the income of certain social groups grew disproportionately fast, while the relative poverty of other groups increased and the inequality between groups was greater. During the recession, however, the incomes of the population have evened out, which is also indicated by a lower at-risk-of-poverty rate. (Indicators of Sustainable Development, 2011) Compared to the EU average, in the Baltic States the share of social transfers in reducing poverty is not sizable; however they have a positive influence on the economic situation of many households. Despite several studies conclude that poverty in Estonia causes poverty and it is not very easy to escape from this vicious circle (see for example Social Inequality, 2007; Poverty in Estonia 2010).

Figure 3.5. At-risk-of-poverty rate, 2005-2010



Note: The share of persons with an equalised disposable income below the risk-of-poverty threshold, which is set at 60 % of the national median equalised disposable income (after social transfers).

Source: Eurostat (EU SILC).

Table 3.5 describes the at-risk-of-poverty rate by different personal characteristics groups. Patterns and tendencies in different groups are comparable to those which were observable also analysing the risk of poverty or social exclusion indicators. Females are more at-risk-of-poverty; elderly people faced highest risk up to 2010 and after that the risk is highest for (households with) children; those with lowest levels of educational attainment have higher at-risk-of-poverty rate.

The probability of being poor depends on the structure of household. At-risk-of-poverty is the biggest for households with one adult, first and foremost in the pension age. For example, in Estonia in 2007, 39% of the persons aged over 65 lived below the at-risk-of-poverty risk, among the persons of pension age living alone the respective percentage was 80. The probability of falling into poverty increases when the third child is born to the family. 11% of the households with two children live below the at-risk-of-poverty, but among the households with three or more children 22% live below the at-risk-of-poverty. In the sustainable society, all children should have equal possibilities for education, health care, satisfactory living conditions, recreational activities and well-spent leisure time. In Estonia, about one fifth of the children aged up to 15 live below the at-risk-of-poverty threshold. This indicator has decreased a little during economic growth years and increased after that again. Also the place of residence is one factor influencing the risk of poverty. (Indicators of Sustainable Development, 2009)

Table 3.5. At-risk-of-poverty rate by sex, age groups and educational level, 2005-2010

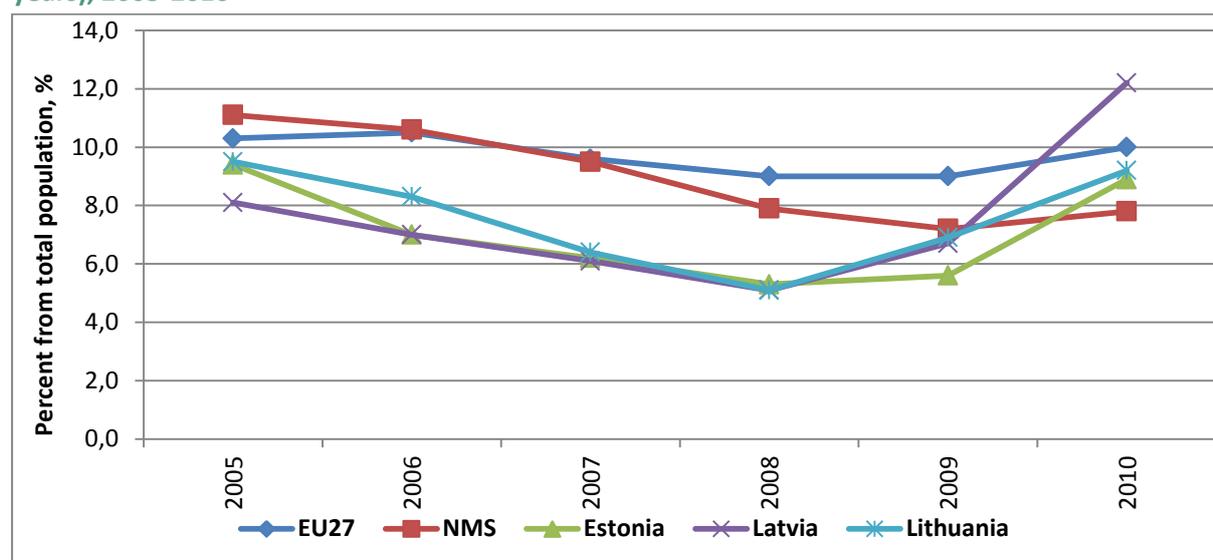
	2005	2006	2007	2008	2009	2010
Males*						
EE	15.9	14.9	16.2	16.1	16.3	14.9
LV	17.1	19.6	18.6	22.5	23.6	19.9
LT	17.7	16.8	15.1	16.2	17.6	20.3
Females*						
EE	18.9	20.1	22.5	23.2	22.1	16.0
LV	19.9	24.7	23.6	28.5	27.4	20.3
LT	19.4	20.2	21.1	21.8	21.7	18.9
Less than 18 years						
EE	21.3	20.1	18.2	17.1	20.6	17.3
LV	21.5	25.8	20.5	24.6	25.7	26.6
LT	27.2	25.1	22.1	22.8	23.7	23.3
From 18 to 64 years						
EE	16.8	15.9	16.1	15.0	15.8	15.6
LV	18.0	20.6	18.3	19.6	20.3	20.5
LT	19.0	17.8	15.6	16.8	18.5	21.8
65 years or over						
EE	20.3	25.1	33.2	39.0	33.9	15.1
LV	21.2	29.8	33.3	51.2	47.5	18.8
LT	17.0	22.0	29.8	29.5	25.2	10.2
Pre-primary, primary and lower secondary education (levels 0-2)*						
EE	27.5	28.5	33.6	36.2	34.1	24.5
LV	30.2	38.8	36.1	43.1	44.0	32.6
LT	27.4	30.2	33.5	35.4	35.5	25.6
Upper secondary and post-secondary non-tertiary education (levels 3 and 4) *						
EE	17.4	17.4	19.3	19.6	20.5	17.8
LV	17.4	20.6	19.1	22.7	23.3	20.0
LT	20.3	19.9	17.3	18.0	18.6	21.9
First and second stage of tertiary education (levels 5 and 6) *						
EE	9.6	10.2	10.2	9.2	7.9	6.0
LV	5.5	8.1	8.3	12.6	10.3	6.5
LT	4.9	4.2	4.8	7.0	6.9	9.4

Note: * - 18 years and over.

Source: Eurostat (EU SILC).

Figure 3.6 describes the tendencies in the households with very low work intensity⁷. Analysing the multidimensional indicators of poverty and social exclusion it was observable, that the situation in the Baltic States, especially in Latvian and Lithuanian case, was not very good and in lot of cases the levels of different indicators were higher than the level of NMS average or EU average indicators. Different picture appears when to analyse the percentage of people living in households with low work intensity. The share of such people was remarkably lower during the economic growth years and reached its lowest level in 2008 in all three Baltic States. As the economic recession started the unemployment rates in all Baltic countries increased very sharply and also the percentage of people living in households with low work intensity increased very quickly in 2009 and even more rapidly in 2010. By 2010 the percentage of people living in households with low work intensity is higher than the NMS figure and in the Latvian case the percentage is even higher than the EU average figure.

Figure 3.6. People living in households with very low work intensity (population aged 0 to 59 years), 2005-2010



Source: Eurostat (EU SILC).

When different poverty and material deprivation indicators revealed that females are on worse situation, however when to look the work intensity, then we have to admit that males are facing somewhat poorer situation in all Baltic States than females (see Appendix 3.2). In all Baltic States the male's unemployment rates increased drastically during the economic recession years as the sectors hit by economic downturn were employing more males than females. The share of people living in

⁷ People living in households with very low work intensity are those aged 0-59 who live in households where on average the adults (aged 18-59) worked less than 20% of their total work potential during the past year. Students are excluded.

households with very low work intensity is lowest in the age group from 18 to 24 years and it has been highest since 2006 in the age group from 25 to 64. People with lowest levels of educational attainment experience higher risk of low work intensity.

3.4 Social exclusion

Social exclusion is a much broader concept than just income poverty, in so far as there may be many other factors that leave groups of society isolated. Social exclusion is understood as a situation in which a person is unable to fully participate in social life due to deficient education, low income, unemployment or poor health and living conditions, his/her access to resources and services (e.g. childcare and healthcare facilities) is limited, as well as limited social participation. Social exclusion entails negative consequences not only for the excluded individual but for society at large because of the decrease in the individual's potential contribution to society.

- The persistence of large numbers of people excluded from work represents a key challenge for the objective of social cohesion. The longer a period of unemployment for an individual, the more entrenched that person generally becomes in social exclusion through their inability to afford material goods, services and housing, while their social contacts are often reduced (in part due to a lack of money for going out socially, or due to the stigma of being unemployed); this may lead to a lack of confidence and a reinforced sense of isolation.
- Education can directly provide the skills, knowledge and qualifications that are important in social and labour market participation. The educational resources available in Member States and the length of compulsory education are likely to have some effect on outcomes regarding educational attainment. Ensuring that higher education is open to all, regardless of their social or economic background, forms the basis of the social dimension of the EU's Bologna process (for further discussion see Chapter 5.4).
- Social exclusion can result from poor health, where individuals who have physical or mental health problems cannot fully participate in society. In some cases, exclusion for some other reason (such as unemployment) may reinforce health problems. Poor health from birth, through working life to old age, and the way in which communities accept and help individuals overcome obstacles; can have important impacts on social inclusion. In particular, the ability of society to provide consultation, treatment and care to those with health problems is crucial (for further discussion see Chapter 3.4).

- Homelessness and housing deprivation are arguably the most extreme examples of poverty and social exclusion in European society. Poor housing conditions, a lack of Basic facilities, overcrowding, subjection to noise, pollution and violence are likely to reinforce problems of health, educational attainment, labour prospects and integration. Where long-term difficulties in meeting mortgage and rental payments are evident this can lead to greater demands on social housing, relocation and, in extreme cases, homelessness (for further discussion see Chapter 3.7).
- Technology can be used as a means to break down integration barriers by providing widespread access to information, as well as networks. As with other areas, the development of the information society has brought risks of social exclusion for those individuals who do not possess the necessary skills, equipment or access. Computer and Internet skills are just one form of participation in today's society. In a wider sense, social participation refers to whether individuals participate in activities and organisations, or whether they keep in touch with neighbours, family and friends.

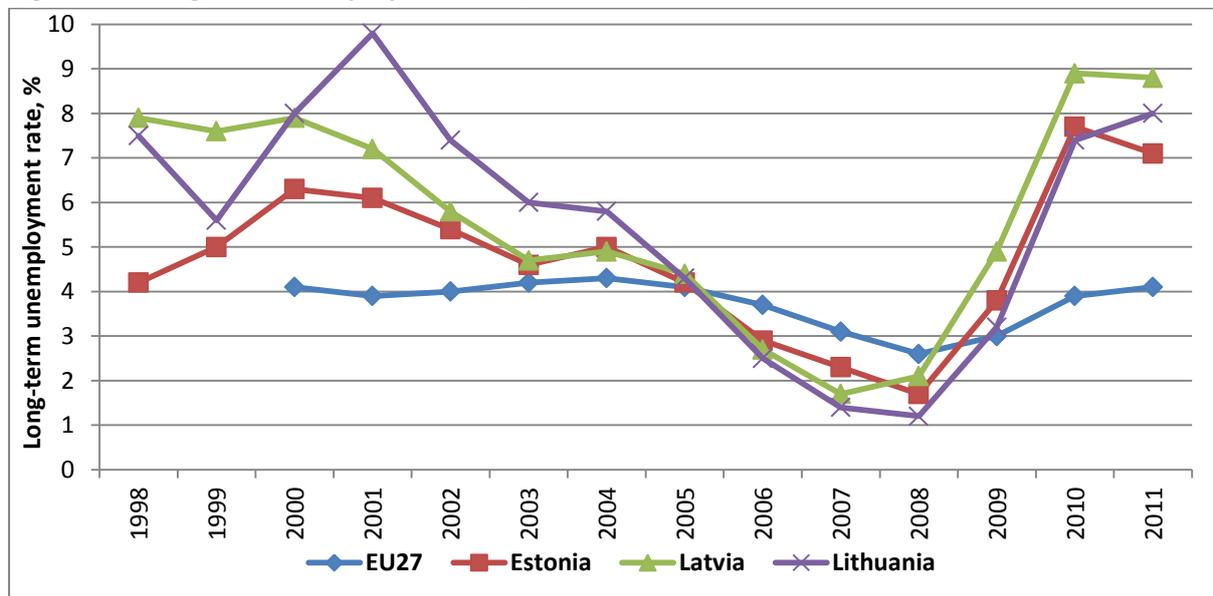
Labour market exclusion

Persons are considered to be long-term unemployed after 12 months of unemployment, and very long-term unemployed after 24 months. Long-term unemployment limits social cohesion and economic growth, as a part of the labour resources is not deployed. Long-term unemployment has a negative impact not only on the unemployed person himself/herself but also on his/her family and the whole society. Professional skills, working habits, self-esteem and quality of life decrease during a long period of unemployment. The emerging subsistence problems in turn affect family relationships and health. As the long-term unemployed have a bigger risk of poverty and exclusion, they are in a potential danger of becoming inactive and discouraged. Long-term unemployment indicates that the qualifications of these people do not correspond to the labour market demands and that there are not enough suitable jobs available for them.

In the Baltic States, the rates of long-term unemployment in 2010-2011 have been among the highest in the EU (see Figure 3.7). The long-term unemployment rate peaked after the Russian crisis in 2000 (in 2001 in the case of Lithuania) and in the following years, unemployment decreased steadily together with the number of the long-term unemployed. The recession that started in 2008 also brought along an increase in long-term unemployment and difficulties in coping, and caused people to give up job-seeking. For example, while in 2008 there were 12,000 long-term unemployed in Estonia, their number increased more than twice in 2009 to 26,000 and doubled again in 2010 – to 53,000. The economic crisis, which lasted over two years, significantly aggravated the situation of

very long-term unemployment. Drastically increased number of unemployment and long-term unemployment has caused situation, where the number of households without working family members has increased and causes polarisation in the societies.

Figure 3.7. Long-term unemployment rate, 1998-2011

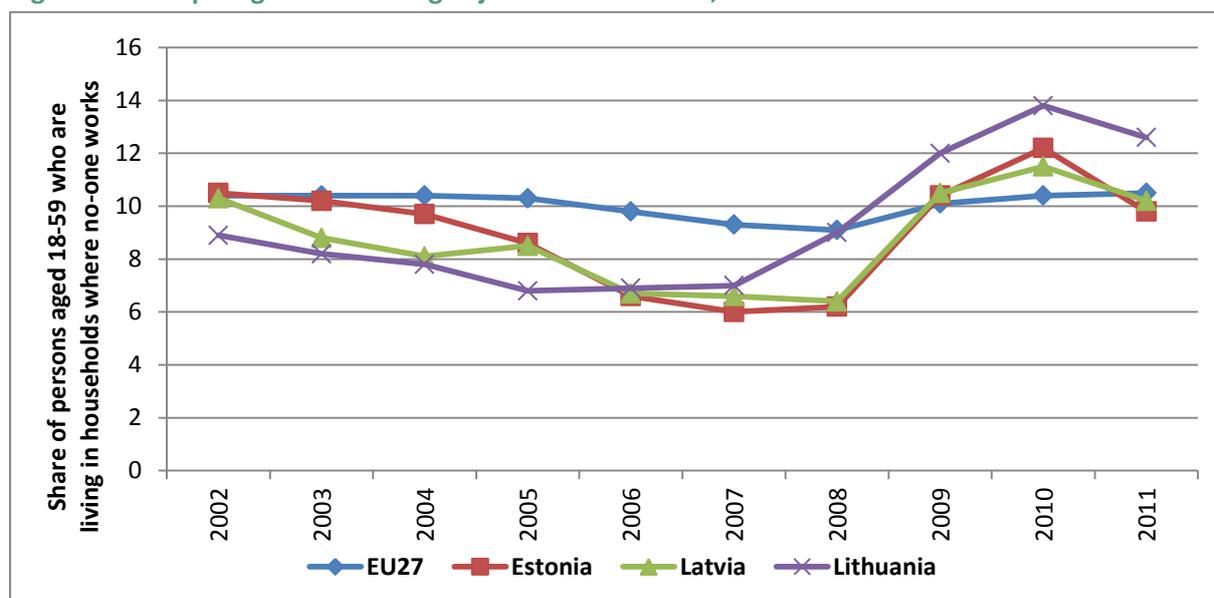


Source: Eurostat, LFS.

In 2007, around 6-7% of adults aged between 18 and 59 in the Baltic States were living in a household where nobody was working, while by 2010 this rate has increased remarkably and in Lithuanian case almost 14% of adults were living in such kind of households (see Figure 3.8). Unemployment also affects other household members and even more depressing is this situation for the children (see Figure 3.9) where poor living conditions and social exclusion may affect their future, as in majority of cases poverty causes poverty and it is not very easy to escape from this vicious circle.

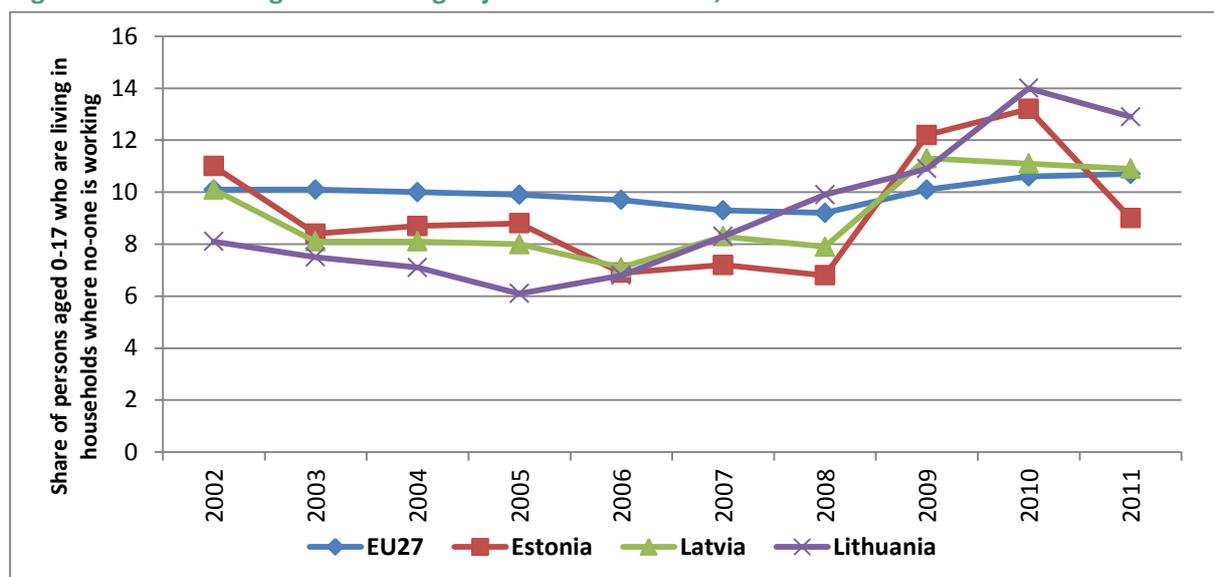
The use of atypical employment practices may also have a direct impact on social inclusion through a lack of security limiting long-term commitments, and also indirectly if such practices lead to reduced pension or sickness benefits.

Figure 3.8. People aged 18-59 living in jobless households, 2002-2011



Source: Eurostat, LFS.

Figure 3.9. Children aged 0-17 living in jobless households, 2002-2011



Source: Eurostat, LFS.

Social participation and social isolation

Today financial affluence is most directly related to well-being, immaterial resources as social and cultural participation also play a part. On the one hand social resources encompass contacts by which important information is transferred. Knowledge obtained from friends or acquaintances could, for instance, lead to a better job or more favourable contracts. On other hand, strong immediate relationships (family, friends) offer emotional support and help preserve mental balance even at the

toughest of times. Unfortunately, there is no much comparable information about social participation and social isolation in the Baltic States. Study “Social participation and social isolation” (2010) carried out by Orsolya Lelkes compares frequency of social contacts and social participation in voluntary activities in the EU member states using the EU SILC User’s database. Main findings of this study concerning the Baltic States and comparison with other member states are as following (Lelkes 2010):

- There is little variation in the total level of social contacts: more than three quarters of the population meet relatives or friends at least once a month in all the countries. However, if to focus on daily or weekly meetings, there is much greater cultural divergence across Europe. The Mediterranean countries tend to be among the most ‘social’, especially Cyprus, Portugal and Greece, where about 40% or more meet friends or relatives on a daily basis. At the other end of the scale are the Baltic States, the Netherlands, Poland and Sweden, where only 5-9% meet relatives every day. All in all, the cultural differences arise not with respect to maintaining relationships with friends or relatives as such, but rather with respect to the intensity of these contacts.
- ‘Cyber intimacy’ also seems to be more widespread in relationships with relatives, and more prevalent in countries with lower levels of social contacts. In Estonia, Germany, Ireland, Netherlands and Sweden at least 1.4 times (40%) more people phone or e-mail relatives than the number who actually meet them, while personal meetings with friends dominate in Lithuania and some other countries.
- A key indicator of social isolation is the lack of potential to get help if needed. By far the majority of people in European countries are able to draw on the help of a relative, friend or neighbour, if necessary. The share of those in the EU who say that they cannot count on such help is 7% on average and the range is between 4.6% and 11.1% in the case of the Baltic States (Table 3.6)⁸. Isolation from friends or from relatives appears to be due to different causes, which tend to be positively (albeit not strongly) correlated at an individual level. With respect to the country level, the countries which stand out in terms of a high degree of isolation from relatives (AT, IT, LV) only partly overlap with those in terms of isolation from friends (LV, HU).
- The share of the population with no friends usually tends to increase with age, due to the breaking-up of friendships or the death of friends, and the growing difficulties of replacing these relationships. The relative disadvantage of those aged 65 or more is three times greater or even

⁸ Social isolation of one-person households in most countries is, as expected, greater than that of the total population. A relatively high share of the population in Latvia (16%) and in some other countries (AT, CZ, FR, HU, IT) believe that they cannot ask for and receive help.

more in many countries, including LT, EL, SI, FI, CY and SK. Family and relatives play a major role in preventing complete isolation in old age: significantly fewer people claim to have no relatives or no contact with them. In AT and LV, which are the countries with the highest share of elderly population with no (contact to) relatives, their share is down to 5-7%, which is a considerably lower ratio than in case of those with no friends. Gender differences with respect to social isolation are much smaller than those presented with respect to age, and these differences vary according to the specific measure used.

Table 3.6. Alternative measures of social isolation across EU countries (share of population affected), 2006

	Not able to ask any relatives, friend or neighbour for help	Never meets relatives	Never contact with relatives	Never meets/has contact with relatives	Never meets friends	Never contact with friends	Never meets / has contact with friends	Never meets / has contact with relatives or friends
	(1)	(2)	(3)	(2, 3)	(4)	(5)	(4, 5)	(2, 3, 4, 5)
Estonia	4.6	3.2	7.4	2.4	5.2	9.7	4.7	0.5
Latvia	11.1	5.2	10.6	4.2	16.8	21.5	16.5	1.6
Lithuania	5.4	2.0	8.9	1.6	6.6	15.4	6.3	0.6

Source: Lelkes 2010.

In Estonian case a study of Rosenblad (2007) reveals that, in the sense of cultural inequality the situation is the worst for those who like to participate in culture to a greater extent but for whom it is impossible for some reason. Culturally excluded groups are clearly evident: non-Estonian for whom language often becomes a barrier, rural dwellers for whom many cultural events take place too far and persons who are either old or with health problems and find it hard physically access cultural events. In addition, cultural consumption is strongly related to income. People, who do better in life, participate in cultural events more frequently and are more interested in them, which could be a mechanism for transmission of social inequality from one generation to the next.

3.5 Changes in patterns of family formation and breakdown

Several studies have indicated (see e.g. Ainsaar, Stankuniene 2011) that three Baltic States not only have some of the smallest populations in the European Union, but they also showed the most rapid population declines throughout the 1990s and 2000s – minus 15% population during observable

years. From 1990-2010 the three countries together lost more than 1.5 million inhabitants (ibid: 50). The reasons for decline of fertility and fluctuating mortality has been often argued as being the reaction in a quite sensitive way to changes in the political and social reorganisation of societies in the Baltic States. According to the census data collected by Statistics Estonia (see e.g. Potisepp 2012) the number of permanent residents in Estonia has decreased from 2000 to 2011 75 816 or 5.5%. Similar, but even deeper has been the population decrease during last ten years in Latvia. According to Latvian CSB (see e.g. Zukula 2012), within the time period from 2000 to 2012 the number of Latvian population has reduced by 340 thousands, or 13% (more than 20% in some areas). Also Table 3.7 indicates that in the Baltic States, there is relationship between Gini coefficient and population change indicators. When in the case of Latvia and Lithuania the correlation coefficients are positive and relatively strong (Latvia $r=.9$, Lithuania $r=.5$) indicating the population growth in the case of increasing inequality. In the case of Estonia the relationship is moderate but with opposite direction ($r=-.5$) revealing the population decline in the context of rising economic inequality. The sensibility of population growth regarding the inequality in Estonia may be characterized by economic changes in Estonia being during the transition period more radical and rapid. However, the population decrease in the Baltic States being inherent to the transition societies is still less drastic compared to countries with rather moderate economic growth like Romania, etc.

Table 3.7. Relationship between population change and income inequality, 1993-2011

	Country	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011
Crude rate of total population change*	EU27	2.5	1.8	1.4	2.4	1.7	4.4	4.2	4.9	2.8	2.5
	EE	-23.0	-15.9	-9.2	-5.2	-4.2	-3.7	-2.1	-1.1	-0.2	-0.4
	LV	-17.5	-12.5	-9.9	-7.3	-7.8	-5.3	-5.1	-4.6	-5.7	-16.0
	LT	-6.1	-7.7	-7.2	-6.9	-3.3	-4.8	-6.5	-5.5	-6.2	-14.8
Crude rate of net migration plus adjustment**	EU27	1.6	1.4	0.9	2	1.2	4.2	3.6	3.9	1.8	1.7
	EE	-19	-10.8	-4.9	-0.8	0.1	0.1	0.1	0.1	0	0
	LV	-12.6	-5.5	-3.9	-1.7	-2.2	-0.4	-0.2	-0.3	-2.1	-11.2
	LT	-6.5	-6.5	-6.3	-5.9	-0.7	-1.8	-2.6	-1.6	-4.6	-12.6
Gini	EE	37.6	36.9	35.5	35.6	35.4	35.0	33.9	32.1	31.1	
	LV	26.5	29.3	30.7	32.3	33.4	34.7	36.0	36.4	36.5	
	LT	32.3	33.1	32.7	32.8	32.9	32.7	34.1	35.3	35.7	

Notes: * The ratio of the total population growth during the year to the average population of the area in question in that year (per 1000 inhabitants). ** Ratio of net migration during the year to the average population in that year (including statistical adjustment, per 1000 inhabitants).

Sources: Eurostat, SWID database.

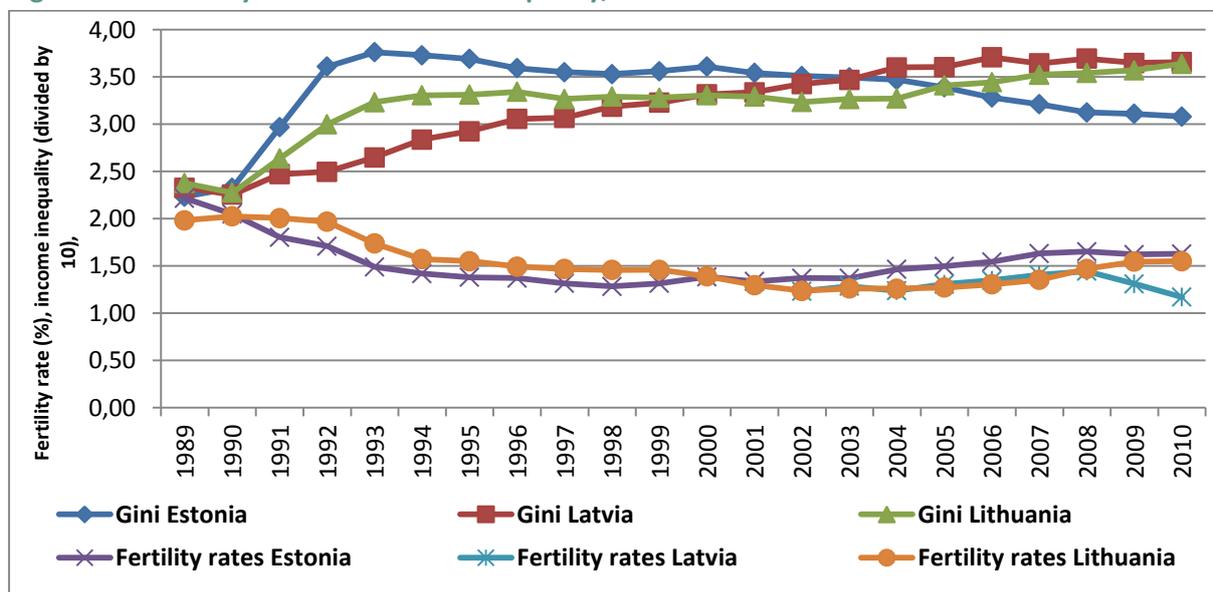
The explanations for the population decrease are in some degree similar in the case of Estonia and Latvia – emigration and negative natural increase are the two dominating reasons. In Latvia the emigration was more dominating reason (in 2/3 cases, or 211.4 thousand against reduce 128.6 thousand because of the negative natural increase). However, in Estonia the emigration may also have in some degree more “hidden” character, since due to the Estonian geographical position next to welfare state Finland the pendulum work emigration is dominating instead of permanent migration.

One of the essential indicators explaining the population processes in the Baltic States in the relation with growth of inequality is the migration. The economic reasons for emigration may function also indirectly – mobility may be seen as an adaptation strategy among individuals in transition societies (as expression of cultural trauma, Sztompka 2004). Besides, mobility in ethnically diverse transition society may have also been seen (Masso 2012) as an indicator of inter-cultural communication barriers (e.g. normative and instrumental language policy) or trans-cultural resources (e.g. contacts over territories, openness to use electronic media, etc.), at least in the case of Estonia. In the case of migration in transition societies, the economical reasoning has often been dominating explaining emigration as spontaneous process being reduced to the “gravitation law” principles – individuals from lower income countries moving to higher income countries (for gravitation law in geo-political relations see e.g. Paas *et al.* 2008), or rather from the demographic perspective. For example, there are analyses concentrating on the ethnic issues of emigration from Estonia, like the return migration in the beginning of 1990s (Kulu, Tammaru 2000), or on the mass emigration in the form of a refugee exodus of the 1980s (see Tammaru *et al.* 2010), that has broadened the geographical extent of the Western sub-diaspora. According to Tammaru, when the previous emigration waves were bigger (e.g. in 1917 215,000 people or 17 per cent of the total number of Estonians, and in 1945 90,000 Estonians; the total size of the diaspora population was 19 per cent of all Estonians), the third emigration flow to the West since 1991 was smaller (with total of 35-40 thousand people).

In present paper next demographic indicators will be analysed more in detail – changes in patterns of family formation and breakdown – aiming to analyse in concrete the relationships between the economic transition and the changes in population processes. In the Figure 3.10 the fertility rates in the Baltic countries from 1989-2010 are presented. For analysing the relationships with tendencies in economics, the corresponding Gini values are included. Data show that inherent to the period of transitional reforms (see Trumm 2011) has been relatively rapid decline in birth rates. Although the data show some growing tendencies in fertility rates in Estonia and Lithuania in the course of transition and in the context of countries’ economic developments, the rates remain still above the limit needed for population natural reproduction. Still the growth is not characterising present-day

Latvia, where after growing tendencies during the economic growth years, the sharp decline was followed. Similar decline could be noticed also in the case of Estonia, but in a smaller extent.

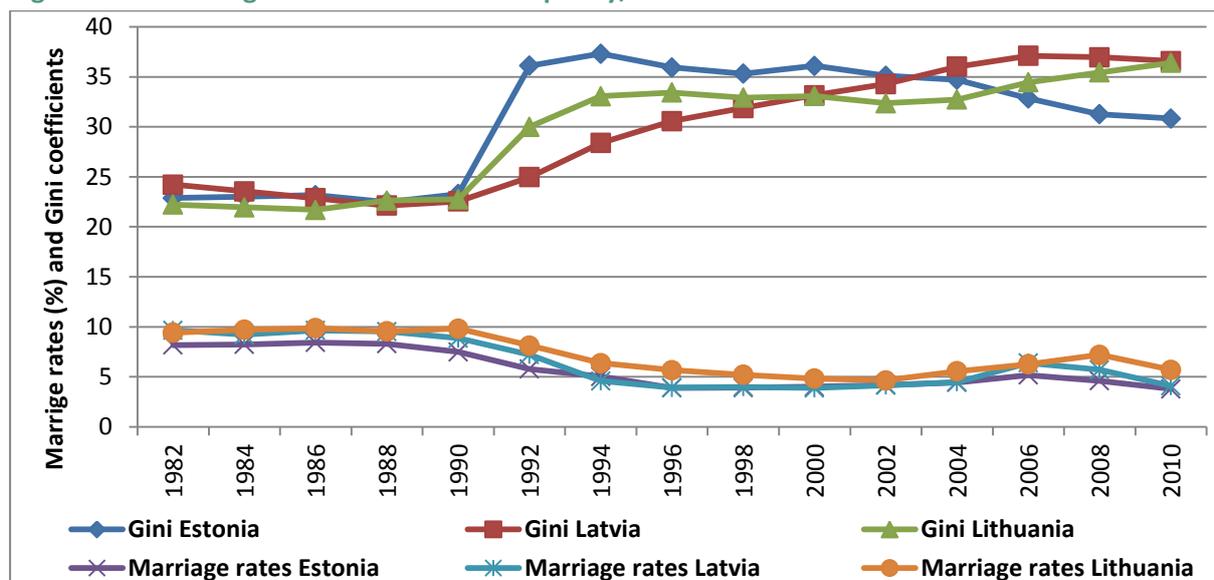
Figure 3.10. Fertility rates and income inequality, 1989-2010



Sources: Eurostat, SWID database.

Previous analysis have indicated (see e.g. Ainsaar, Stankuniene 2011) some correlations between migration and natural growth trends with economic development, but this relationship was not consistent in all countries. According to this study, while migration and birth and death rate trends seem to be related to economic development in Estonia and Latvia, the relationship was controversial in Lithuania. Also here the analysis of associations indicates statistically significant correlations between fertility rates and economic inequality. Still the strength and sign of the average correlations vary across the Baltic States – when in the case of Estonia and Lithuania the higher the inequality value the lower the fertility rates are ($r=-.9$ in the case of Estonia, and $r=-.8$ in the case of Lithuania) then in the case of Latvia the correlations are positive and moderate, ($r=.45$). Such results show that the population changes may not be explained only by the economic inequality but other factors like the speed of economical (but also political, social, and cultural) changes may turn out to be significant here. However, the negative correlation in the case of Lithuania could also be explained by the relative fluctuation of birth rates in the 2000s.

Figure 3.11. Marriage rates and income inequality, 1982-2010



Note: * The ratio of the number of marriages occurring among the population of a given geographical area during a given year, per 1000 mid-year total population of the given geographical area during the same year.

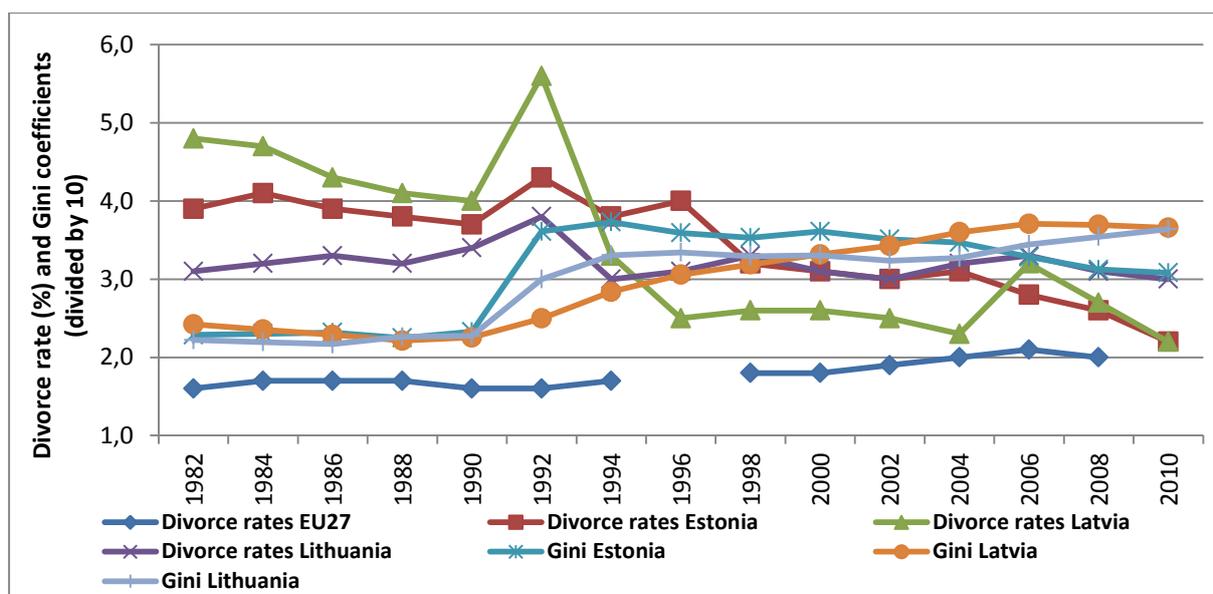
Sources: Eurostat, SWID database.

Figure 3.11 and

Figure 3.12 concentrate on analysing patterns of family formation and breakdown in all three Baltic States in the context of rapid political, economic, and cultural changes after dissolution of Soviet Union. When Soviet time could be characterised by a relatively high degree of marriages – marriage was only socially and ideologically accepted form of cohabitation, but also certain economical amenities were also officially accompanied. The decline of marriages after dissolution of Soviet Union may be explained by the social instability, but also lack of economic opportunities for organising formally the legal act of marriage. Although in the periods of economic stabilisation (1995-1999) and economic development and growth (2000-2007) (see Trumm 2011) the marriage rates have grown in some degree, the rates are still remaining under this level the rates had before the transition, in the beginning of 1980s. The analysis of correlations between the marriage rates and income inequality coefficients indicate quite similar associations in the case of three Baltic States. In the case of Estonia, Latvia as well as Lithuania, the correlations are negative and very high ($r=-.9$ in the case of Estonia and Lithuania, $r=-.8$ in the case of Latvia) indicating that the higher the income inequality in the country the lower the marriage rates. The strong negative correlations may reveal certain unwillingness for stable relations in unstable time periods, but also tendency to avoid expenditures related to the formal procedures of marital ceremony.

Previous studies conducted in Estonia confirm the assumption that economic factors may be essential but may have diverse effects in various social contexts, at least when explaining the family formation. For example, Kasearu (2010) has revealed in her study that the cohabitation as a new social phenomenon in Estonian society is to be understood as an outcome of the interplay between structural change at societal level and individual action at the micro level. Kasearu has shown (Kasearu, Kutsar 2011) that the unmarried cohabitation has spread across European countries as a universal trend. However, according to these studies (Kasearu 2010; Kasearu, Kutsar 2011), Estonia has diverted from the Eastern European cluster of countries and has moved toward Western European family formation pattern (e.g. in Estonia, the cohabiting couples have children more often and the duration of cohabitation is longer).

Figure 3.12. Divorce rates and income inequality, 1982-2010



Note: The ration of the number of divorces during the year to the average population in that year. The value is expressed per 1000 inhabitants.

Sources: Eurostat, SWID database.

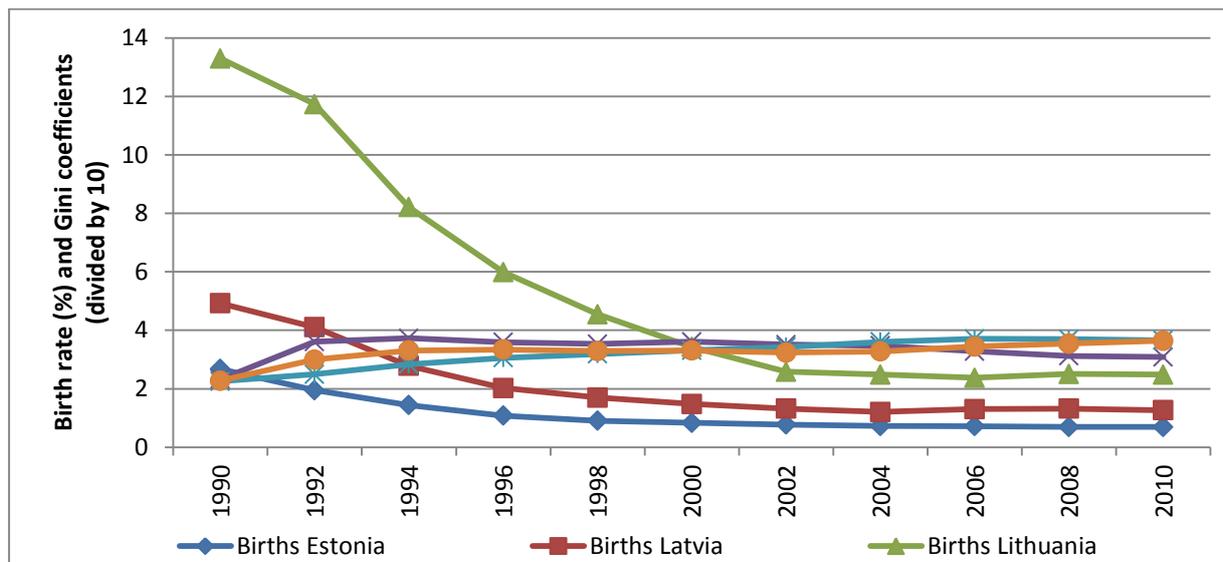
Figure 3.12 represents the divorce rates comparatively in three Baltic States, from 1980s quite even growth could be seen in all countries. The rapid growth in the beginning of 1990s could be, similarly to decline of marriages rates, explained by individually felt social insecurity and instability. The relative stabilisation of divorce rates during the economic growth years is followed by increase of divorces again in the context of economic recession in the end of 00ies. Previous studies have shown (Kasearu 2010) that increasing number of divorces goes parallel with other rapid demographic changes after the collapse of state-socialism in most of the CEE countries, like decrease of fertility and marriage rates. Similarly to the marriage rates, also when analysing divorce rates there could be seen statistical associations with indicators of economic inequality. In some degree similar tendencies are appearing like in the case of marriage rates – the correlation coefficients with economic inequality is moderate and positive in the case of Estonia ($r=.446$), strong and negative in the case of Latvia ($r=-.858$) and Lithuania ($r=-.754$). Such results may indicate diverse cultural strategies both in the case of family formation and break down – when the economic inequality may motivate individuals in Estonia to revise their marital status (to divorce and marry again), in Latvia and Lithuania the economic instability may promote detachment preferences.

Figure 3.13 indicates that already end of 1990s, during the period of transitional reforms (see Trumm 2011), the number of births in marriage was decreasing in all three Baltic countries, or vice versa, the number of births outside of marriage has been growing. On the one hand the data may express the similar behaviour like analysed in the last figures – the lack of strong relationships in the context of the economic uncertainty and societal transition. Also the

Figure 3.13 indicates negative moderate (in the case of Estonia $r=-.485$) or strong (in Latvia $r=-.957$, in Lithuania $r=-.823$) relationships between birth rates and economic inequality – the higher the economic inequality, the lower the birth rates in all Baltic countries. The weaker correlation in the case of Estonia may be explained by the relatively higher level of inequality in general, at least before the period of economic crisis, and therefore also in the 2000s when the inequality is slightly decreasing, the effect may be inert and rather subjective, or cultural – instead of real economic influences, the subjective feeling of insecurity may turn out to be essential.

On the other hand, the statistics may also indicate the economic motivations of the individuals – the higher family allowance in the case of lone parenthood may motivate the parents register themselves as lone parents. Although the birth rates are also nowadays quite moderate in all three Baltic States, some analyses indicate some modest growing tendencies. For example the analysis conducted in Estonia (see e.g. Võrk *et al.* 2009) reveal that the implementation of parental benefit has motivated foremost women with higher income give birth to second and third child (instead of deciding to get only one child). Still, behind the temporarily grown birth rates is more probably the generation who has postponed their family formation (i.e. getting first or second child).

Figure 3.13. Live births by marital status and income inequality, 1990-2010



Note: Ratio of live births in marriage and outside of marriage.

Sources: Eurostat, SWID database.

3.6 Levels and trends in health inequalities

Next health indicators will be analysed, both factual and subjective, assuming that those indicators reflecting the overall level of socio-economic development, having also an impact on the reproduction of the population as a whole.

Previous studies have indicated (Krumins 2011) that from 1990 to 1995, life expectancy for both sexes fell by 2.2 years in Estonia, 2.4 years in Lithuania and 3.2 years in Latvia. Psychosocial stress was found as the most plausible explanation for the health crisis in the Baltic States at the beginning of the transition to the market economy. Also unemployment have been indicated in previous studies (Krumins 2011) as an important sources of stress, particularly because due its highly unequal distribution across age groups, gender, regions, levels of education, and other socio-demographic characteristics.

Results in Table 3.8 indicate that in the following years, the situation has improved significantly in all three Baltic countries, and the decline was replaced by growth in life expectancy. The strength of associations between income inequality and life expectancy are rather moderate. When in the case of Estonia the correlation is negative ($r=-.353$) both among males and females indicating that the decreasing income inequality may support to rise life expectancy. However, the strength of the relationship is rather moderate and hence factors other than inequality may be behind the health indicators (e.g. health system, alcohol, overweight, smoking, etc.). When in the case of Lithuania the

correlations is weak ($r=.140$, foremost in the case of females), in Latvia in the case of both sexes the life expectancy is increasing in spite of the continuously growing income inequality ($r=.518$).

According to the data presented in the table, a total growth in life expectancy during the last twenty years was higher in Estonia, followed by Latvia and Lithuania. Another gap appearing on in the table is the difference in life expectancy comparing men and women in the Baltic States. The significantly lower life expectancy among men can be explained by cardiovascular diseases and violent deaths playing considerable role in excess mortality (see e.g. Krumins 2011). Last can be explained by the processes related to the labour market – in the Baltic States there may be higher work pressure among men, compared to other European countries (e.g. highest gender wage gap in Europe, male's overwork, etc.). One of the explanations may be also the rather moderate working conditions, e.g. according to working life survey 2009 (Industrial relations... 2009) in approximately 94% enterprises, employees are exposed to health risks while working.

Table 3.8. Life expectancy at birth by gender, 1990-2010

Countries	1990	1992	1994	1996	1998	2000	2002	2004	2006	2008	2010
Males											
EU27							74.0	74.7	75.2	75.8	
EE	64.57	63.52	60.59	63.98	63.6	64.9	64.6	65.9	66.8	68.1	69.9
LV							64.4	65.5	65.0	66.5	68.0
LT	66.16	65.03	62.48	64.31	65.7	66.3	65.7	65.9	64.8	65.6	67.3
Females											
EU27							80.3	80.9	81.4	81.7	
EE	74.65	74.78	72.87	75.20	75.0	75.8	76.4	77.4	77.8	78.9	80.0
LV							75.7	76.0	75.9	77.2	77.8
LT	76.02	76.11	74.77	75.59	76.3	77.1	77.1	77.3	76.5	77.0	78.2

Source: Eurostat.

Table 3.9 illustrates variation in self-reported health by education for three Baltic States, with those with higher levels of education much more likely to report better health. However, this relationship between subjective health evaluations and the education is weakest in Latvia. In general, responses to this question are more negative in the case of transition countries than in the EU overall. However, also here significant differences comparing three Baltic countries may be found, in Estonia being the

average perception of individual health level in some degree higher. However, when in Estonia the health perceptions have changed during period of 2004-2010 more positive, in Lithuania the tendency is rather opposite. We may suppose, that one of the reasons may be that (see also Ainsaar 2011) unlike in Estonia, in Lithuania the individuals have to pay higher proportion of the healthcare services by themselves and hence certain population groups may have limited access to health care services.

Table 3.9. Self-perceived health by education (per cent of respondents indicating health as bad or very bad), 2004-2010

	2004	2005	2006	2007	2008	2009	2010
Level 0+ 1 (pre-primary, primary)							
EU	27.3	33.8	32.7	29.5	29.1	29.3	26.4
EE	23.1	49.3	31.6	42.1	38.0	44.3	
LV		34.1	49.4	42.2	40.0	46.9	35.1
LT						56.5	51.3
Level 2+3 (lower and upper secondary)							
EU	6.2	9.1	8.9	8.8	8.2	8.2	8.2
EE	15.6	18.3	17.5	18.4	18.5	21.0	19.8
LV		28.1	19.4	17.6	18.5	17.6	18.1
LT		19.1	15.9	16.3	18.8	19.3	20.5
Level 3+4+5 (post-secondary and tertiary)							
EU	3.0	5.2	5.2	5.3	4.7	4.8	4.6
EE	6.5	8.1	8.2	9.9	6.0	4.3	5.0
LV		13.5	16.4	11.9	12.8	12.8	15.0
LT		13.7	13.4	11.6	13.4	13.1	14.0

Note: * EU6-1972, EU9-1980, EU10-1985, EU12-1994, EU15-2004, EU25-2006, EU27.

Source: Eurostat, SILC.

Previous studies (Aaviksoo, Sikkut 2011) have indicated that as a result of reforms in health care systems, Estonia has been able to establish one of the most efficient health care systems in the Baltic States. Estonia was more forceful than Latvia and Lithuania in its political decisions and their subsequent implementation with regard to all three primary components of health care reform – social insurance-based and relatively high financing of health care by public sector, a strong primary care system based on family physicians and the financial autonomy of the service providers – during the 1990s. However, the present analysis of self-evaluated health perception shows that despite of

the successful reforms in health care systems, the individuals in transition society may have lower estimates on their life quality.

3.7 Housing tenure patterns and trends

The housing tenure in the Baltic States may be characterised by relatively low level of tenants compared to average of EU, being lowest in Lithuania compared to Estonia and Latvia. Instead, in some degree higher level of ownership is characteristic to the Baltic States unlike in EU average. However, three Baltic States differ considerably regarding ownership status, both with or without mortgage or loan. Table 3.10 reveals highest ownership with mortgage or loan in Estonia.

Table 3.10. Distribution of population by tenure status, 2007-2010

	2007	2008	2009	2010
Owner				
EU27	73.1	73.5	73.5	70.7
EE	86.8	88.9	87.1	85.5
LV	84.4	86.0	87.1	84.1
LT	89.4	91.6	91.0	93.1
Owner, with mortgage or loan				
EU27	25.8	26.6	27.1	27.9
EE	15.9	12.3	16.0	16.6
LV	2.9	7.6	9.0	7.7
LT	5.8	7.3	9.0	7.8
Owner, no outstanding mortgage or housing loan				
EU27	47.3	46.9	46.5	42.9
EE	70.9	76.6	71.1	68.9
LV	81.5	78.5	78.1	76.5
LT	83.5	84.3	82.0	85.3
Tenant				
EU27	26.9	26.5	26.5	29.3
EE	13.2	11.1	12.9	14.5
LV	15.6	14.0	12.9	15.9
LT	10.6	8.4	9.0	6.9

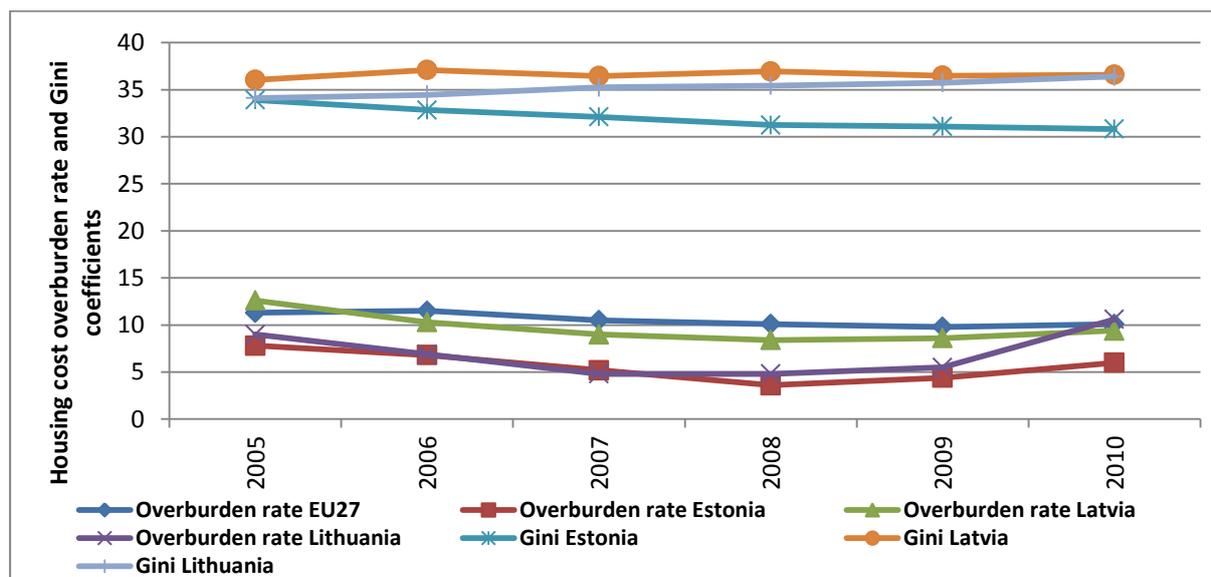
Source: Eurostat.

Tendency to own property is not only inherent to the Baltic countries, but also to other former Soviet countries. On the one hand, one of the reasons to own could be explained by the wish to “compensate” the cultural memory – strict real estate purchase regulations during the Soviet time. On the other hand, the rent prices are relatively unstable due to the low proportion of municipal or public property.

Regarding housing cost overburden rates (see Figure 3.14) after some decline in all Baltic countries until 2008, the growth could be noticed, especially rapid in Lithuania. When some social indicators have showed certain stabilising tendencies after economic recession in 2008, here the housing have turned out to be more sensitive indicator, probably due to the relatively higher proportion of housing costs in the Baltic countries compared in share of total income. The relationship between overburden rate and income inequality indicates controversial relationship in three Baltic countries. The high and positive correlation in the case of Estonia ($r=.785$) in the 00ies indicate that in the course of the declining inequality the housing cost overburden may decrease. In the case of Lithuania, the relationship is almost non-existent. In Latvia the relationship is moderate, but unlike in Estonia, negative ($r=-.519$). Other data indicate that when in the most European countries the housing cost overburden rate for tenants paying a market rent was higher than for owners and persons paying reduced rent or enjoying rent-free accommodation, then the only exception besides Slovakia and Sweden was Latvia. In Latvia the percentage was higher for home-owners with a mortgage (Rybkowska, Schneider 2011).

On the Figure 3.15 housing deprivation rates are presented. As stated by the European Commission (Rybkowska, Schneider 2011), the housing deprivation is one of the most extreme examples of poverty and social exclusion in society today. Although access to affordable accommodation is a fundamental need and right, guaranteeing this right still represents a significant challenge in several EU countries. Housing deprivation rate, being defined as the percentage of population living in the dwelling which is considered overcrowded, has been increasing in 2000s in all three Baltic countries, still having remarkably higher level as in EU countries on the average. The ranking of countries here – Estonia having “best” position, followed by Lithuania and Latvia – is similar to other social indicators.

Figure 3.14. Housing cost overburden rate and income inequality, 2005-2010



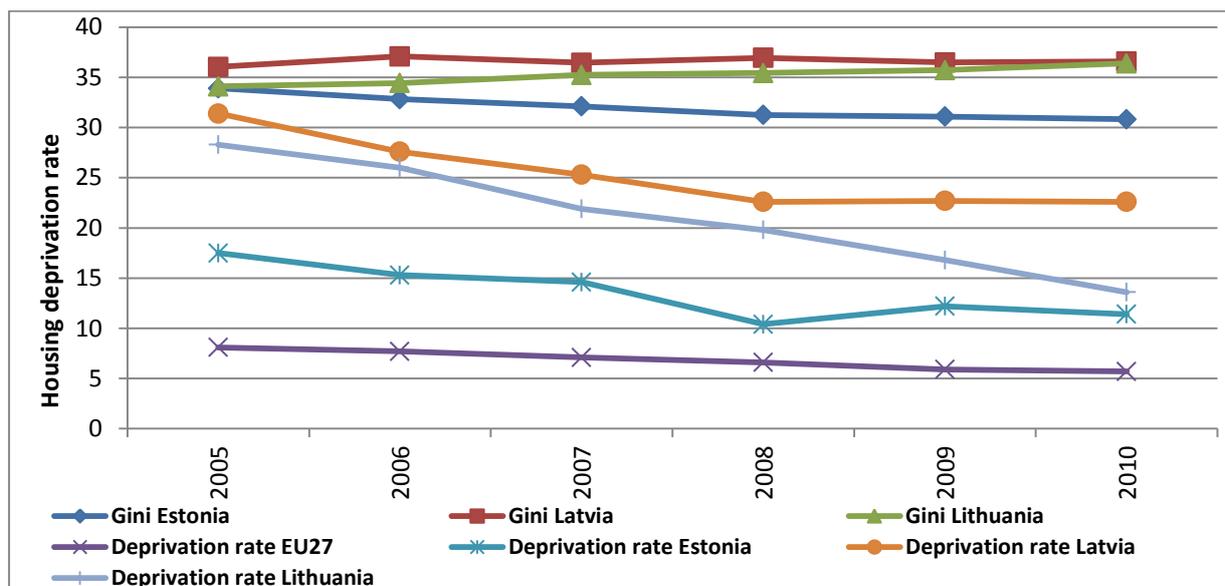
Note: The housing cost overburden rate is the percentage of the population living in households where the total housing costs represent more than 40 % of disposable income.

Source: Eurostat, SWID database.

The slowdown of decline in housing deprivation from 2008 could be here also explained by the economic recession period. Also other studies have revealed (Rybkowska, Schneider 2011) that one of the highest intensity of housing deprivation was in 2009 in the Baltic States, similarly to Romania and Bulgaria. According to the same data – housing conditions survey 2009 – the share of population living in dwellings affected at least two problems was the highest in Romania (43%) followed by Latvia (21%), Bulgaria (20%), Lithuania (19%), and Estonia (13%).

Analysis of associations with income inequality indicate that the economic reasons behind that one is living in an overcrowded dwelling appear foremost in the case of Estonia ($r=.949$). In the case of Lithuania ($r=-.993$) and Latvia ($r=-.421$), the relationships are opposite. Thus the rather high degree of housing deprivation in Baltic countries may be only partially explained by the income inequality – the dwellings' overpopulation, the renovation necessity are only some of the examples that was to the Baltic countries devised by the Soviet period (see also Chapter 3.3).

Figure 3.15. Housing deprivation rate and income inequality, 2005-2010



Note: Severe housing deprivation rate is defined as the percentage of population living in the dwelling which is considered as overcrowded, while also exhibiting at least one of the housing deprivation measures: Housing deprivation is a measure of poor amenities and is calculated by referring to those households with a leaking roof, no bath/shower and no indoor toilet, or a dwelling considered too dark.

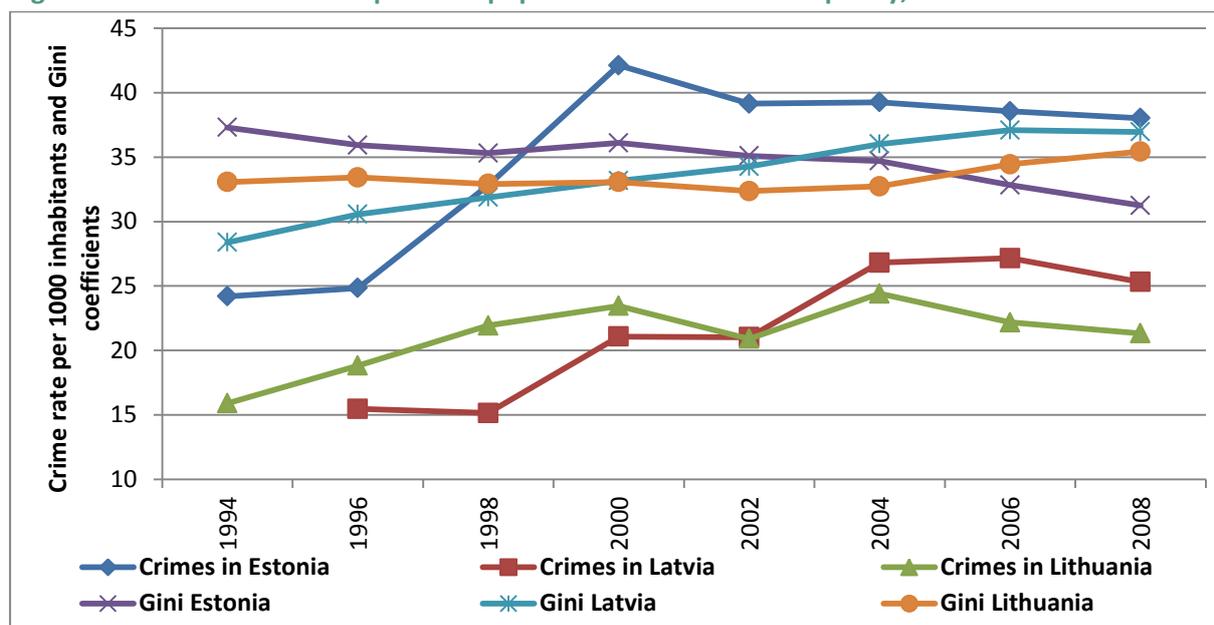
Sources: Eurostat (EU SILC), SWID database.

3.8 Crime and punishment

Several previous studies have indicated the relationships between crime rates and income inequality. Figure 3.16 indicates crime tendencies in the Baltic States since 1993. This figure indicates relatively high crime rates in all Baltic States in the beginning of 1990s, when the political, economic, social and cultural changes were most rapid. The higher crime rates in Estonia, compared to other Baltic countries may be explained by the relatively rapid speed of economic, social and political changes in the beginning of 2000s. After the relative stabilisation period in the 2000s, it could be seen small increase in the end of 2000s in Latvia. The figure indicates, that the strongest relationship between income inequality and crime rates are in Latvia ($r=.957$) showing that the higher the inequality the more insecure the society due to the rising crime. In the case of Lithuania the association coefficient is close to zero and hence factors other than inequality may explain the variation in crime rates. In Estonia the correlation is moderate and negative ($r=-.507$) showing that also in the case of smaller inequality in the end of 00ies the crime rates were rather high. In the case of Estonia the explanation may be that the quite high crime rates compared to other two Baltic countries are inert and more rigidly changeable by the economic factors. Also other studies have shown (Trumm 2011) that despite Estonia having the fastest growing economies among the new EU members, Estonia still lags behind in the level of efficiency of social spending, and have one of the highest rates of “social diseases”, such as crime, drugs, HIV and suicides.

Crime rates reported by police presented in the next Table 3.11 show the decrease of several crime types, like homicide, domestic burglary, robbery, and motor vehicle theft – in all three Baltic countries in the course of transition, social stabilisation and economic growth. Only two crime types, robbery and domestic burglary, when decreasing considerably in two Baltic countries, in Estonia and Latvia, is remaining in Lithuania almost on the same level. Similar tendency could be found in Lithuania in the case of violent crime. When in Estonia in the course of economic etc. transition the crime rates have been decreasing, the violent crime has been considerably growing.

Figure 3.16. Total crime rates per 1000 population and income inequality, 1994-2008



Sources: Eurostat, SWID database.

In Table 3.11 the data indicate some relationships between income inequality and crime rates. However, the most obvious are the relationships in the case of Latvia ($r=.598$) indicating that in general the high crime rates may be explained by the higher level of inequality.

Table 3.11. Crime rates per 1000 population, 1993-2009

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Homicide																	
EE	0	0.204	0.17	0.15	0.127	0.141	0.114	0.104	0.1	0.104	0.108	0.067	0.084	0.068	0.069	0.063	0.052
LV	0	0	0.112	0.104	0.106	0.098	0.089	0.092	0.091	0.088	0.094	0.086	0.055	0.064	0.051	0.052	0.048
LT	0.135	0.153	0.133	0.108	0.103	0.096	0.094	0.116	0.108	0.091	0.111	0.103	0.118	0.089	0.084	0.09	0.075
Violent crime																	
EE	0.535	0.609	0.561	0.527	0.555	0.51	0.463	0.493	0.47	0	1.778	2.433	3.529	3.833	4.346	6.773	5.525
LV	0	0	0	0	0	0	1.402	1.653	1.591	1.452	1.373	1.451	1.248	1.198	0.841	0.849	0.825
LT	1.284	1.432	1.054	1.218	1.365	1.277	1.227	1.543	1.475	1.58	1.745	1.905	1.915	1.615	1.404	1.299	1.255
Robbery																	
EE	0	0	0	0	2.474	2.856	3.566	3.465	3.274	0	1.39	1.208	0.963	0.747	0.661	0.678	0.542
LV	0	0	0	0	0	0	1.092	1.327	1.294	1.136	1.074	1.064	0.938	0.98	0.643	0.635	0.67
LT	1.008	1.149	0.779	0.963	1.107	1.024	0.955	1.245	1.2	1.305	1.421	1.545	1.52	1.276	1.123	1.025	1.004
Domestic burglary																	
EE	4.722	4.657	5.645	4.816	4.701	5.044	5.502	5.309	5.598	5.404	4.79	4.257	3.537	2.921	2.306	2.477	2.258
LV	0	0	0	0	0	0	1.961	2.357	2.301	2.207	2.285	2.6	1.865	2.015	1.602	1.558	1.828
LT	1.885	2.019	2.048	2.387	2.627	2.596	2.596	2.62	2.48	2.011	2.476	2.662	2.063	1.95	1.63	1.805	1.731
Motor vehicle theft																	
EE	1.734	1.717	1.35	1.153	1.253	1.512	1.78	1.692	2.062	1.931	1.548	1.362	1.432	0.921	0.75	0.772	0.697
LV	0	0	1.109	0.897	0.852	1.03	1.293	1.231	1.171	1.213	1.445	1.276	0.877	0.945	0.758	0.823	0.807
LT	0.822	1.38	1.429	1.262	1.25	1.36	1.21	1.706	1.9	1.866	2.028	1.837	1.326	1.017	0.841	0.758	0.587

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Drug trafficking																	
EE	0.005	0.005	0.008	0.021	0.021	0.084	0.131	0.223	0.459	0.464	0.445	0.366	0.509	0.73	1.079	1.162	0.777
LV	0	0	0.108	0.146	0.175	0.161	0.213	0.275	0.351	0.268	0.428	0.495	0.455	0.435	0.629	1.106	1.02
LT	0.007	0.016	0.019	0.026	0.015	0.026	0.016	0.026	0.047	0.061	0.147	0.206	0.292	0.207	0.226	0.236	0.261

Source: Eurostat.

Also other data have indicated (see e.g. Fajnzylber *et al.* 2002) positive correlations between income inequality and crime rates within countries, and particularly, between countries, and this correlation reflecting causation from inequality to crime rates, even after controlling for other determinants. However, present analysis indicated, that in the case of Estonia and Lithuania, the relationships being in general weak and rather ranging from year to year and by crime type.

When in Latvia the prison population size have shown some decreasing tendencies after dissolution of Soviet Union, in Lithuania the proportion have had some waves and reaching certain stabilisation after 2004. In Estonia, the prison population has been in the course of analysed years 1995-2009 most stable.

3.9 Patterns and trends in subjective measures of well-being, satisfaction, “happiness”

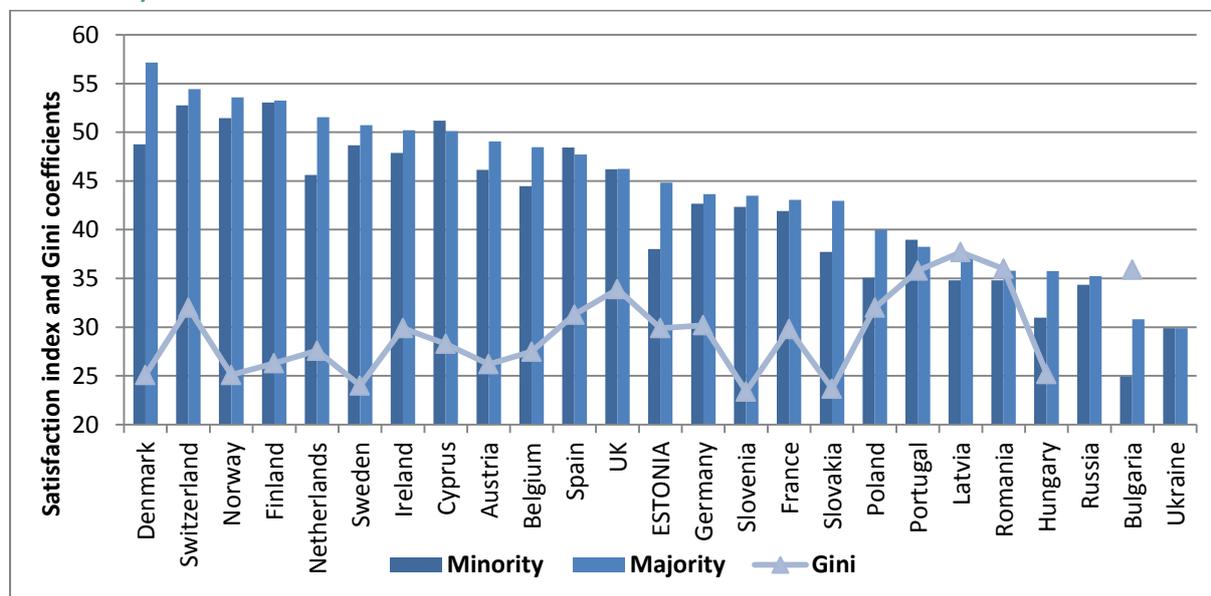
Previous studies have shown (see e.g. Vihalemm *et al.* 2011) that trends over time in indicators of satisfaction and subjective well-being may offer a valuable complement to non-monetary indicators of deprivation. The data about subjective measures about well-being rely on comparative European Social Survey data and sources collected locally, like Baltic Human Development Survey. The data of the Baltic Human Development indicate the highest level of life satisfaction in Lithuania (mean value 5.94 on 10-categories scale) compared to Estonia (5.73) and Latvia (5.19), the differences in mean values being statistically significant (on the base of ANOVA, $p \leq 0.001$).

Figure 3.17 indicates that the Baltic countries (here Estonia and Latvia) differ regarding the self-estimated life satisfaction from other European countries. Estonian general position regarding the self-estimated life satisfaction is closer to Western-European mean value, compared to Latvia, where the mean value remains below the European average.

Figure 3.17 indicates also that Estonia has the greatest difference in the evaluation of life satisfaction between the majority and minority groups – Estonians are noticeably more frequently satisfied with life than other ethnic groups. This may be explained, to a certain extent, by the very drastic change in the status of the Russian-speaking population after the collapse of the Soviet Union. However, the same thing occurred with the Latvian Russian-speaking population, but in Latvia the gaps in the satisfaction evaluations based on ethnic group are somewhat smaller (see also Masso 2008). The figure also indicates remarkable associations between subjective life satisfaction estimates (in general, considering both minority and majority) and Gini coefficients ($r = -.485$) – the higher the inequality in particular country the lower the self-estimated life satisfaction. In some degree higher

life satisfaction in Estonia, compared to Latvia, may also at least partially be explained by Gini coefficient being some degree higher than in Latvia.

Figure 3.17. Life satisfaction by ethnic majority and minority groups (comparison with Gini coefficient)*



Note: * To calculate the satisfaction index, the following questions have been summed up: How satisfied are you with the current economic situation in the country / the government / performance of democracy in the country? How satisfied are you with your life on the whole / your standard of living / your work? How happy are you? (a higher aggregate index value indicated greater satisfaction).

Sources: European Social survey 2006, Eurostat, Masso 2008.

The data conducted in 2011 has even been more exact explaining the cultural background of the life-satisfaction. The data of the Baltic Human Development Survey 2011 indicated that the perceived quality of one's life and the social and economic positioning and expectation of the future are related to the knowledge of languages (see Table 3.12). The patterns were different in each of the Baltic States. In Estonia, the knowledge of Estonian as the second language was statistically significantly related to self-estimated quality of life and social and economic status. In Latvia and Lithuania, such a connection was not evident – assessment of people's quality of life and their position in society were differentiated by ethnicity, regardless of the knowledge of languages. This means that in Estonia inter-ethnic issues do not equate to language issues.

Table 3.12. The quality of life, social and economic positions and expectations for the future among the populations of the Baltic States explained by the background variables, 2011

	How satisfied are you with the quality of your life?			How do you assess the economic situation of your household at present?			How do you assess the economic situation of your household in five years?			In which layer of society are you? (10 imaginary steps)			Do you associate your future and the future of your children with Estonia / Latvia / Lithuania?			
	EE	LV	LT	EE	LV	LT	EE	LV	LT	EE	LV	LT	EE	LV	LT	
Ethnicity		++	+				+++			+					++	+
Knowledge of national language**	+					+++			++			+				
Knowledge of English***		+++	+++		+++	+++		++	+++		+++	+++			+	
Knowledge of another foreign language** *			++			+++		+	+			++				+

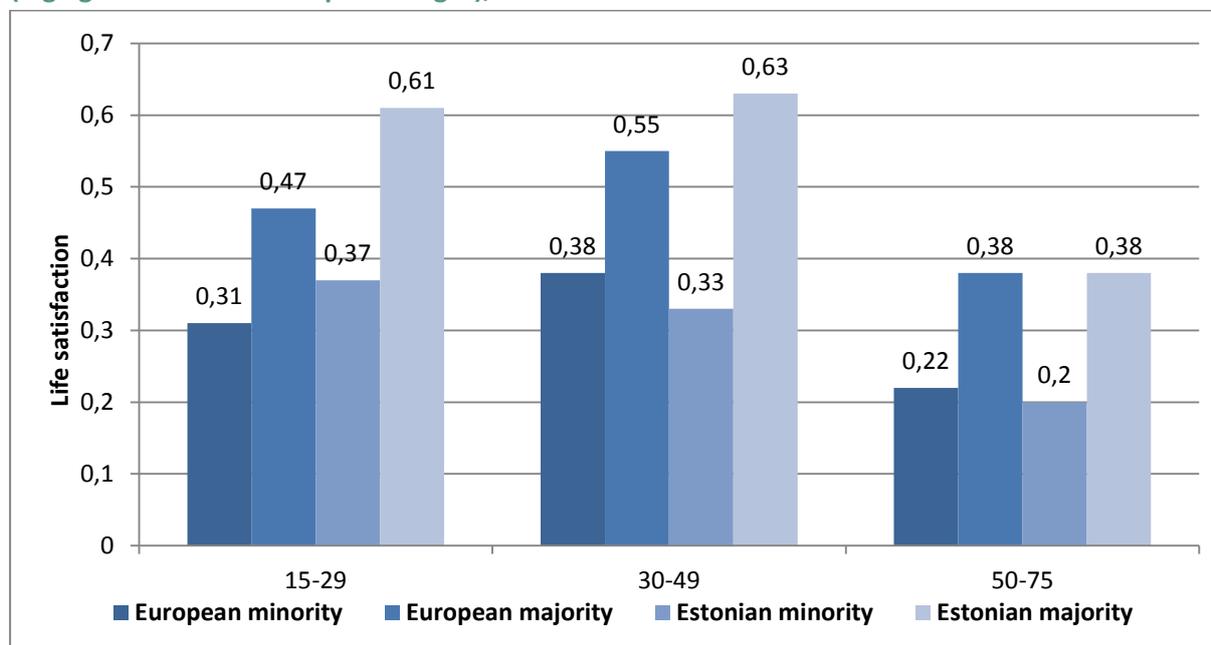
Notes: * Relationships found in regression analysis. A Plus sign indicated the statistical significance of relationships (+++ p≤.001; ++ p≤.01; + p≤.05); a blank box indicates that there are no statistically significant relationships. ** Relationships are similar for both the total population and the Russian-speaking population. *** Relationships for the total population. In the case of the Russian-speaking population, the statistical significance of the relationships is lower or there is no statistically significant relationship.

Sources: Baltic Human Development Survey 2011, Estonian Cooperation Assembly & TNS EMOR.

Age has been another structural factor that has turned out to be significant explaining the life satisfaction in the Baltic States, as well in other transition countries (see e.g. Realo 2009). And this may have a greater effect on evaluations in the case of immigrants – younger people may be more satisfied since they have adapted better to the society. Figure 3.18 presents an overview of the satisfaction evaluations of ethnic majority and minority groups in different age groups. From the figure we can see that Europe is characterized by a greater percentage of satisfaction among the middle-aged population. Estonia is an exception with the greatest percentage of satisfaction among the youngest age group. In the oldest age group, the satisfaction evaluations of Estonia's population are comparable to the European average (see Figure 3.18). Such results may be explained by means of the relatively good job and career opportunities among younger age groups in transition countries, at least before times of economic crisis. However, the higher emigration tendencies in Latvia compared to Estonia during last decades, being characteristic foremost among younger age groups (or minority language groups in Estonia), may indicate that there is also a group of the young who

has looked for alternatives for the home society, e.g. due to the feeling of inequality, or lack of cultural, economic, etc. capitals (see Chapter 3.5.).

Figure 3.18. Life satisfaction of majority and minority groups by age group in Estonia and Europe (high general satisfaction percentages), 2006



Source: European Social survey 2006, Masso 2008.

In sum, in Estonia, life satisfaction depends, to a greater degree, on ethno-linguistic affiliation than it does in Europe on average and compared to other Baltic States. While in the “old” EU member states the general satisfaction of ethnic minorities is strongly related to evaluations regarding the performance of the country’s economic system and democracy, in Estonia, in a similar manner to the majority of post-Communist transition states, the satisfaction of ethnic minorities tends to be shaped by subjective factors (primarily one’s personal sense of happiness). At the same time, the subjective satisfaction is quite strongly related to indicators of social integration – the strength of personal social networks and the perception or non-perception of discrimination. In Estonia, one’s relationship with the performance of the state as intermediated by the social network is also characterized by the fact that critical evaluations regarding state policies do not significantly differ among those Russian-speakers who are personally more or less successfully integrated (see Lauristin and Vihalemm 2008).

3.10 Intergenerational mobility

There are several databases enabling to analyse intergenerational social mobility in Estonia. However, since the study of social mobility is inherently quite complex, demanding often longitudinal

design, there are no data for enabling comparative analysis of intergenerational mobility in all three Baltic countries. For these reasons, next overview focuses on representative survey data where the factual individual level of education is compared to the wished education for the children. The overview of factual mobility both for education and income will be given on the base of secondary data.

In Table 3.13 the results of self-estimated wish for educational mobility are presented. The analysis of association between present education and desired education (for respondent him/herself, or for the children) shows that the highest relationship is in the case of university education (see highest association coefficient) – those individuals having higher education prefer to have this level of education also for their children or grandchildren. Quite similar tendencies emerge also in the case of vocational educational – there is quite evident wish to carry on the vocational traditions in family. However, the relationships are weaker, still also statistically significant in the case of upper secondary education, i.e. the parents having secondary education (or the respondents themselves) wish for their children to seek for higher education (of for the respondent himself/herself). Although such tendency may characterise some tendencies to sustain the family traditions still the analysis characterises also the evaluation of higher education as being one of the essential resources in a transition society (see also Masso and Kirss 2012).

Table 3.13. Associations between present education and wished education in Estonia (%), 2011

		Wished education for her/himself, for children, grandchildren			
		Secondary	Vocational	Applied higher education	University education
Present education	Primary	3	5	2	1
	Basic	26	22	13	12
	Secondary	27	22	24	23
	Vocational	30	42	37	29
	Higher	14	9	23	34
	Total	100	100	100	100
	Cramers'V	.183***	.219***	.081*	.239***

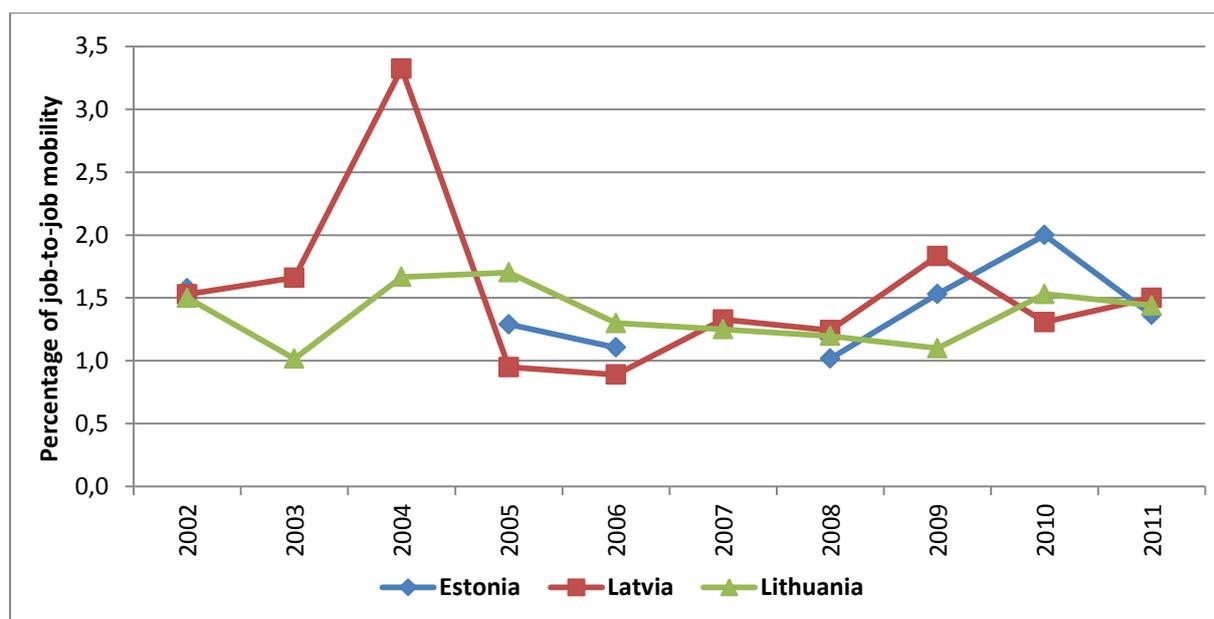
Note: the association coefficient Cramers'V indicates both the existence and strength of statistical association, used foremost in the case of nominal variables. The value of the association varies between 0...1 (the higher the value the stronger the relationship.) * p≤.05, ** p≤.01, *** p≤.001.

Source: Estonian Integration Monitoring 2011 (University of Tartu, Praxis, Emor).

Previous studies (see e.g. Titma 2002) have even named this tendency “cult of successfulness”, or “winner generation” in order to emphasize the considerably distinguishing cohort in their early thirties (now in forties) compared to average indicators. For these reasons previous studies have stated (Titma 1999), that foremost this particular generation was implementing the transition to a market economy that organises the private sector and provides work to the other members of society. The same study indicates extensive mobility that characterized the considered generation during the six years after Estonia regained its independence (1991-1997). The openness of transition society enabled, according to Titma (1999), to move respondents upward as well as downward in social and income hierarchy. At the same time some features typical to a stable market economy became evident, e.g. by a group of professionals and managers who were born 1977, received income that was far above average and their education became a significant predictor of earnings (Titma 1999: 263).

Former studies have found (Titma 1999) that gender has been the most important intragenerational factor of differentiation. Data presented on Figure 3.19 indicate similar abovementioned tendencies about the gender differences in job mobility. In all three Baltic States males job-to-job mobility is approximately 1.4 times higher than mobility of women. When the rate has been quite stable in Estonia and Lithuania 00ies, in Latvia the males' opportunity for job mobility has dominated in the beginning of 00ies over the opportunities of women.

Figure 3.19. Male to female rate on job-to-job mobility, 2002-2011



Note: Movement of an individual between one job and another from one year to the next. It does not include inflows into the labour market from a situation of unemployment or inactivity. Human Resources in Science and Technology. Here male percentages are divided.

Source: Eurostat.

The recent studies (Saar 2010) exploring temporal changes in Estonian intergenerational mobility patterns for four cohorts born from 1930s to the 1960s, have revealed that absolute mobility rates decreased for men, especially when considering the upward moves. On the other hand, in the same study, there were no changes in total mobility rates among women, but upward mobility decreased slightly and downward mobility increased. For explaining the background of mobility, according to Saar (ibid), there is little evidence that educational expansion led to a decreasing association between class origins and educational attainment in Estonia. Saar hypothesises, that the impact of social origin on educational attainment increased due to the growth of the proportion of students paying tuition fees.

Comparative analysis conducted in all three Baltic countries (Hazans *et al.* 2008) has revealed the role of ethnic factor when explaining the tertiary education attainment among different generations, i.e. after eliminating Russian-language instruction from state-financed higher education, a wide gap in tertiary enrolment and graduation rates has emerged between the titular ethnicity in each country and the sizable (predominantly Russian speaking but also Polish in Lithuania) ethnic minorities (Hazans *et al.* 2008: 746). Regarding the intergenerational transmission of educational attainment, the same study revealed that parental (especially mother's) education has a strong positive effect on the propensity to enrol in, and complete, secondary and tertiary education, the tendency being foremost characteristic to the Soviet era and to the transition period. However, there is evidence

that transition to the market has weakened mother's education for the titular ethnicities, while the opposite is true for the minorities.

3.11 Conclusions

In sum, we can conclude that although the data show some growing tendencies in fertility rates in Estonia and Lithuania in the course of transition and in the context of countries' economic developments, the rates remain still above the limit needed for population natural reproduction. Three Baltic States not only have some of the smallest populations in the European Union, but they also showed the most rapid population declines throughout the 1990s and 2000s. Besides decline of fertility and fluctuating mortality third factor – emigration is essential here. Reasons for the population decline, considering both the fertility rates, and emigration, has been argued as being the reaction in a quite sensitive way to changes in the political and social reorganisation of societies in the Baltic States.

Another social indicator essential when explaining the inequalities in transition societies turned out to be self-estimated life satisfaction. Estonian general position regarding the self-estimated life satisfaction was in 2008 closer to Western-European mean value, compared to Latvia, where the mean value remains below the European average. The data of the Baltic Human Development Survey 2011 indicated that the perceived quality of one's life and the social and economic positioning and expectation of the future are related to the knowledge of languages, indicating that in Estonia inter-ethnic issues do not equate to language issues (and the inequality in the society as a whole). Age turned out to be another structural factor that has turned out to be significant explaining the life satisfaction in the Baltic States, as well in other transition countries.

Similarly to the subjective estimates of well-being, also the self-perceived health estimates indicate the inequalities in the transition societies. While in Estonia the health perceptions have changed during period of 2004-2010 more positive, in Lithuania the tendency is rather opposite. Unlike in Estonia, in Lithuania the individuals have to pay higher proportion of the healthcare services by themselves and hence certain population groups may have limited access to health care services. Psycho-social stress (also due to the unemployment) was found as the most plausible explanation for the health crisis in the Baltic States at the beginning of the transition to the market economy.

4. Political and cultural impacts

4.1 Introduction

As mentioned before, several indicators can be used to assess the degree of income inequality in a country, each applying a different methodology, and capturing slightly different phenomena. The most commonly used indicators of inequality are the Gini indicator and the ratio of the 90th to the 10th percentile available from Eurostat and based on the EU Statistics on Income and Living Conditions (EU-SILC) survey data. Yet, the only measure that provides comparative time-series data on the inequality in the Baltic countries for more than 20 years is the GINI coefficient taken from the Standardized World Income Inequality Database (SWIID) (Solt 2009). It points to a large increase of inequality after the breakdown of the Soviet Union (see Figure 2.1). Radical liberal reforms were carried out as the countries became market economies. All three Baltic countries had to adjust to the new conditions and faced the same problems: a crisis of values, political transformations, economic crisis, privatization, depletion of human capital etc. In addition to huge rise in unemployment and decrease in living standards during the first years of transition, radical liberal reforms led to rapid social and economic polarisation and growing social exclusion (Harwin and Fajth 1998). As early as 1992 the state was forced to curtail its social programmes, and provided very little support to those losing their jobs and income (Fajth 2002), promoting neo-liberal economic ideology instead. In such circumstances those who do not have a strong representation and political power, such as women, children, and young people, risk being left behind. In post-communist countries it led to an increase in poverty and marginalisation of the poor (Ellman 1997; Brainerd 1998).

The increase in the levels of inequality was the most rapid in Estonia; however, since then inequality in Estonia has been declining. In contrast, in Latvia there has been a gradual and stable increase in inequality up to the recent economic crisis. In Lithuania the levels of inequality remained almost constant during the 1990s but have been increasing after the country joined the EU. The Eurostat indicators of inequality tell a similar story. At the beginning of 2000s Estonia was the most unequal of all the Baltic countries and Lithuania – the most equal, yet nowadays the situation is reversed. Inequality in Estonia has significantly decreased, and now is similar to the average EU15 level, while Latvia and Lithuania have by far the highest Gini coefficients in Europe.

Social interactions tend to take place among individuals with similar status homophily and value homophily (Lazarsfeld and Merton 1954). Thus, while “similarity breeds connection” (McPherson,

Smith-Lovin and Cook 2001), inequality which represents a significant gap between social groups in terms of resources, education, culture, and lifestyle, makes contacts between people of different social status less likely to occur (Bourdieu 1998). It fuels social exclusion, discrimination and hostility towards minority groups. Status gaps between individuals diminish the sense of solidarity, cause feelings of threat, anxiety and stress (Wilkinson and Pickett 2009), and generate social distrust (Herreros 2004). As a result, people are more likely to engage in opportunistic behaviour (Putnam, Leonardi and Nanetti 1993), and further rely on close-knit networks (Karstedt 2003). Inequality also has a detrimental effect on confidence in formal institutions (Rahn and Rudolph 2005). Moreover, it is often paired with political inequality (Solt 2008) giving the rich and educated more effective voice and helping the elites to institutionalise unequal access to resources through formal channels.

The availability of longer comparative time-series data for post-communist countries is very limited. Most of the analysis in the following section is based on European Values Study (EVS) data, since it is the only major social survey in which all three Baltic countries have been taking part over a longer period of time: in 1990, 1999, and 2008.⁹ The most recent comparative data on all three Baltic countries are taken from Eurobarometer and European Social Survey (ESS) Round 4 (2008). Among other data sources are the International Social Survey Programme (ISSP), the Comparative Political Data Set III, 1990-2010 by Armingeon et.al. (2011), and the information provided by Eurostat and national statistical offices.

4.2 Political and civic participation

Scholars analysing participation in post-communist countries have come to a conclusion that three different historical phases of political participation can be distinguished (Karklins and Zepa 2001):

- the mobilization phase (1988 - 1991) which was characterized by a “boom” of participation, and extensive mass activism aimed at restoring independence. People were especially eager to participate since this was the first opportunity for them to freely voice their political opinions.
- the normalizing phase (1992 - 98) when the level of activity dropped significantly. Some associate it with the so called “post-honeymoon” effect - disappointment linked to excessively high expectations that followed the overthrow of the communist regime (Inglehart and Catterberg 2002) - and negative developments in social and economic spheres related to the fast pace of the transition.

⁹ One should be careful when analysing the dynamics of attitudes in Baltic countries, since there are only a few observations, and sampling designs sometimes differ. One should be particularly cautious about the WVS wave of 1990-1991: it captured a very atypical, overly optimistic period of time in post-communist countries.

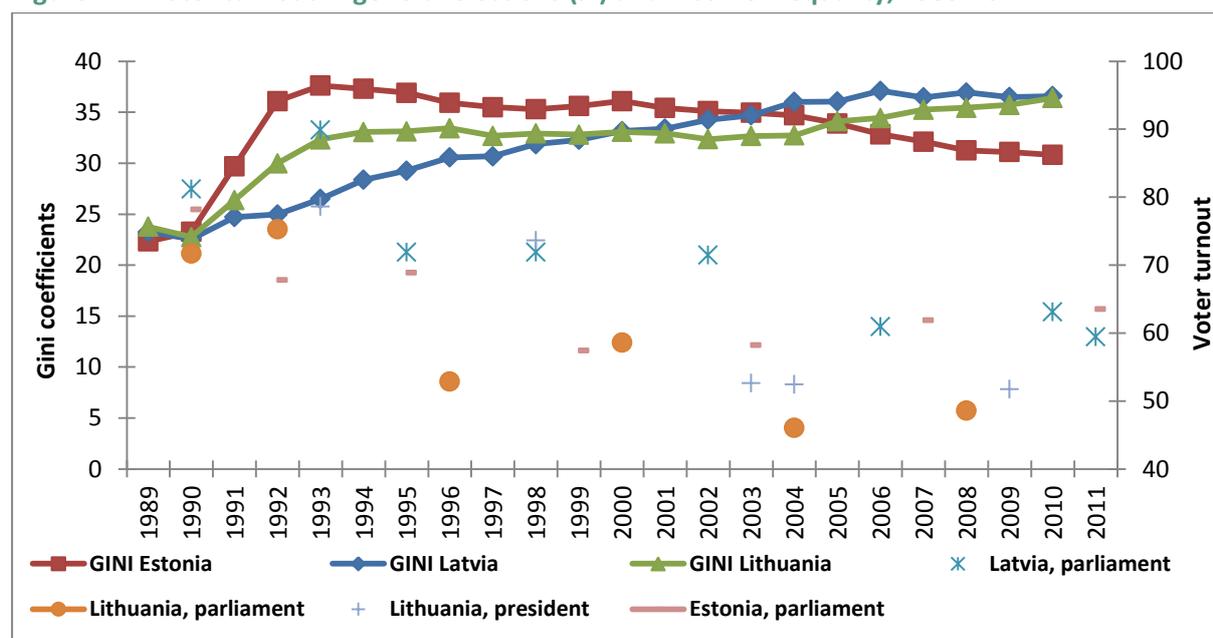
- the stabilization phase (1999 - ...) when participation rates are increasing again, but their character is changing. Next to conventional political participation one notes increasing protests, referendum initiatives, and corrupt ways of gaining influence (Karklins and Zepa 2001, p.334).

In the Baltic States, the first democratic elections after the restoration of independence attracted an exceptionally high number of voters (Figure 4.1 and Table 4.1). Yet, after an initial period of active citizens' participation, by the end of 1990s voter turnout had considerably decreased. At the moment Baltic countries have some of the lowest voter turnouts in Europe. Among other factors, the low and declining voter turnout in the Baltic countries could be linked to an increase in inequality since the beginning of the transition (see Solt 2008). As we see from our data, while in Lithuania and Latvia voter turnout has been steadily decreasing, in Estonia the decrease in inequality rates has been accompanied by a modest increase in voter turnout. Surveys also show that besides those with low levels of education, unemployed or disabled, young people and poor people are least likely to vote. Thus, not everyone has an equal say in choosing their political leaders.

In Latvia voter turnout remained high well into the 1990s, but decreased significantly from the 2002 to the 2006 elections, remaining low ever since. The early parliamentary elections in 2011 that were held following the country's first parliamentary dissolution referendum attracted only 59.4% of eligible voters. Moreover, the number of Latvia's inhabitants taking part in elections is even lower, since 325,8 thousand or 14.6% of the population are not citizens of Latvia and do not have the right to vote in any elections, to participate in referendums, or to be founders or members of political parties.

Estonia is the only Baltic country where voter turnout has been constantly, though only slightly, increasing during the last 10 years. The latest voter turnout data for Estonia show that 63.5% of voters took part in the national parliamentary elections of 2011. Estonia was the first country in the world to use Internet voting in the 2007 parliamentary elections, and in 2011 elections already 24.3% voted through the Internet. Such innovation, without doubt, helps to advance equal opportunities to participate in elections for every citizen of the country.

Figure 4.1. Voter turnout in general elections (%) and income inequality, 1989-2011



Source: Central Election Commission of Latvia, Estonian National Electoral Committee (in Essex Database), and the Central Electoral Commission of the Republic of Lithuania.

Table 4.1. Voter turnout in general elections (%), 1990-2011

Estonia		Latvia		Lithuania			
				Parliamentary		Presidential	
Year	Voter turnout	Year	Voter turnout	Year	Voter turnout ¹⁰	Year	Voter turnout
1990	78.20	1990	81.20	1990	71.72	1993	78.62
1992	67.84	1993	89.90	1992	75.30	1998	73.66
1995	68.91	1995	71.90	1996	52.90	2003	52.65
1999	57.43	1998	71.89	2000	58.60	2004	52.46
2003	58.24	2002	71.51	2004	46.08	2009	51.76
2007	61.91	2006	60.98	2008	48.59		
2011	63.53	2010	63.12				
		2011	59.45				

Source: Central Election Commission of Latvia, Estonian National Electoral Committee (in Essex Database), and the Central Electoral Commission of the Republic of Lithuania.

Lithuania has the lowest voter turnout in the Baltic States. Only 48.6% of eligible voters showed up in (the second round of) 2008 national elections. The differences in turnout rates in the Baltic countries might partly be explained by the differences in political systems. In Lithuania elections are held in two rounds, and it is the only Baltic country that elects the head of the state in general elections. The

¹⁰ Second round. Turnout rate in the first round is typically even lower.

turnout rates in presidential elections in Lithuania are similar – 51.7% in 2009 - and compared to the beginning of 1990s have also decreased.

Local government elections in the Baltic countries, similarly as elsewhere (Thorhauge 2006) attract even less voters' interest than national elections. The turnout rate in the latest (2009) local elections in Latvia was only 53.7%, in Estonia - 60.1% (2009), and in Lithuania - 44.1% (2011). The comparatively big gap in participation rates in national and local elections in Latvia is partly due to the fact that in order to vote in local elections citizens are required to be physically present in their voting districts. No absentee or electronic voting is available. This limits access to voting for people who are disabled, poor, working or studying abroad.

Since the accession to the EU, citizens of the Baltic countries have voted in two European Parliament (EP) elections: in 2004 and 2009. The interest in EP elections compared to national or even local/municipal elections is typically low (Thorhauge 2006). Surprisingly, Lithuanians turnout in European elections in 2004 reached 48.4% - even 2% more than in the national parliamentary elections that took place later that same year (International Institute for Democracy and Electoral Assistance 2012). One of the reasons for that could be that the EP elections were scheduled on the same day as the presidential elections. In 2009 46.1% of Lithuanian citizens turned up for the EP elections.

Voter turnout in 2004 EP elections in Estonia was one of the lowest in the EU – 26.8%. Considering that Estonia is a small country with only six representatives in the EP, people probably did not consider it worthwhile casting their vote, thinking that their voice will not be heard anyway. However, the turnout increased significantly five years later, to 43.9%.

In Latvia, too, significantly more people turned up for the 2009 EP elections than for the 2004 EP elections (53.7% compared to 41.3%), reaching similar voter turnout rates to local elections. Thus, the interest in the EP elections both in Latvia and Estonia has grown – opposite to the trend that has been observed in most EU member states who have been members of the EU for a longer period of time (Thorhauge 2006). After experiencing the EU financial support and involvement in many different areas, people are starting to realise how influential is the role of EU institutions.

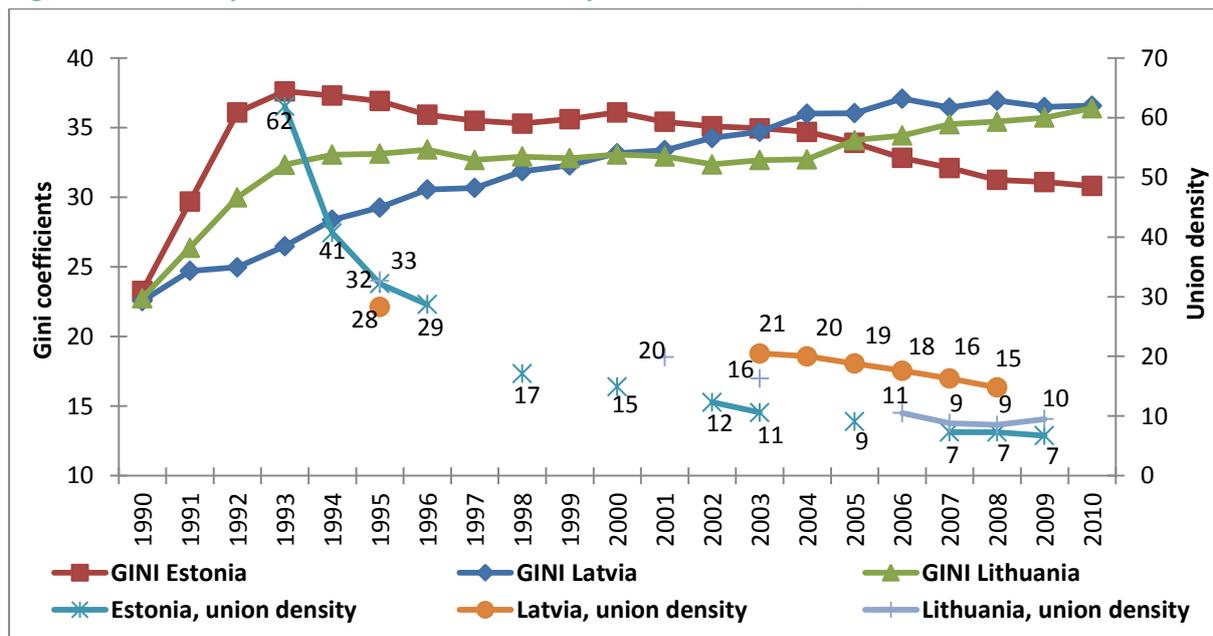
When analysing people's civic and political participation in the Baltic countries, one needs to take into account the historical context, and the political culture in which peoples political attitudes have developed. During the Communist times, the Soviet leadership was methodically suppressing all kinds of non-systemic activities that could potentially become dangerous for the regime, effectively bringing the voluntary associations under the leadership and control of the communist party. As a result, people have inherited a certain scepticism regarding any kind of formal participation (Howard 2003; Paldam and Svendsen 2000).

Trade unions that functioned during the Communist times and that every worker was required to be a member of dissolved with the fall of the Communist regime. During Soviet times trade union membership was favoured via rather different incentives than those seen in developed countries. The trade union membership was necessary to get the permission to buy certain commodities and the trade unions acted mainly as social activities organizers. After regaining the independence, the state limited support has prohibited the development of the trade union movement. As a result, the union density in all Baltic States has been constantly decreasing ever since (Armigeon et.al. 2011). According to Visser's (2005) calculations, in 1995 still almost one in three wage and salary earners in employment in the Baltic countries were members of a trade union, however, by 2008/2009 the number had decreased by about 50% in Latvia, and more than three times – in Estonia and Lithuania.¹¹ Currently the trade union density in the Baltic countries is the lowest in Europe: in 2009 only 7% of workers in Estonia, 10% in Lithuania and about 15% in Latvia were members of a trade union (Figure 4.2). From the organization level factors the main reason for low trade union membership is the limited awareness of both employer and employee representatives on social dialogue and collective agreements and its advantages (Espenberg *et al.* 2012). Even though labour market partners in the Baltic countries are not particularly strong – less than 20% of employees are members of labour unions and the density of employers organisations is also low – Toots and Bachmann (2010) argue that their role in setting social and tax policies is increasing.

Many scholars see non-governmental organisations and voluntary associations as crucial democratic agents (Putnam, Leonardi and Nanetti 1993; Putnam 2000), and place them at the core of civil society. Considering the lack of democratic tradition and path-dependency of political culture, the conditions for their emergence in the Baltic countries after the fall of the Communist regime were pretty tough. Frequent attempts were made to facilitate the emergence of civil society 'from above' – with support from the government or external sponsors, yet many have questioned the efficiency of this approach (Fukuyama 2001; Howard 2003; Maloney and Rossteutscher 2007). Organizations mainly aimed at attracting project funding often proved to be short-lived. The "weakness of civil society" was commonly seen as an obstacle to democratic consolidation in Eastern Europe (Howard 2003).

¹¹ In Lithuania the net number of people belonging to unions decreased from 500,000 in 1995 to 115,000 in 2009; in Latvia – from 225,000 in 1995 to 143,000 in 2008; and in Estonia, from 397,000 in 1993 to 250,000 in 1994 and finally 42,000 in 2010.

Figure 4.2. Developments in trade union density and Gini coefficients, 1990-2010



Note: Net union membership as a proportion of wage and salary earners in employment (%).
 Source: Visser (2005) (cited in *Armingeon et.al. 2011*, Comparative Political Data Set III, 1990-2010).

After the initial period of political mobilisation and activism, from 1990 till 1999 citizens’ participation rates in all organisations and associations (except religious organisations) decreased (Table 4.2). Moreover, of all the post-communist countries, the decrease in the Baltic States was the most dramatic, leading to the lowest civic engagement rates in Eastern Europe (Fuchs and Klingemann 2006; Koroleva and Rungule 2006; Letki 2004). Moreover, involvement in unpaid work in voluntary organizations decreased too (Adam 2007). Some scholars have blamed it on the so-called “post-honeymoon” effect (Howard 2003; Inglehart and Catterberg 2002) and the loss of trust in political authority (Mishler and Rose 2005) while others see it as a result of the lowering living standards, personal economic struggles, and people being more concerned with improving their living conditions rather than politics or leisure (e.g., Zepa 1999).

According to the EVS data, in the Baltic countries the membership rates in (any) organisations decreased the most among the poorest three income deciles of the society. The decrease was mostly caused by people losing their jobs and becoming unemployed, and as a result losing their membership status in a trade union. Other organisations were not well developed in post-soviet Baltic countries. As a result, the resource-poor individuals became disadvantaged not just economically but also politically, not being able to channel their demands to decision-makers and organise for collective action as effectively as others (see Putnam, Leonardi and Nanetti 1993; Howard 2003, Teorell et.al. 2007). Thus, an increase in economic inequality was accompanied by an increase in political inequality. Currently, same as in other countries (Pithcler and Wallace 2009)

resource-poor individuals in the Baltic states are members of far less associations and organisations than those from the higher strata.

Table 4.2. Dynamics of member in civic organisations (% of total adult population), 1990-2008

	Estonia			Latvia			Lithuania			All countries included in EVS (average)		
	1990	1999	2008	1990	1999	2008	1990	1999	2008	1990	1999	2008
trade unions	59.0	4.7	5.9	52.0	11.3	8.1	42.7	1.9	3.4	22.1	15.6	10.3
professional associations	4.2	3.6	6.5	6.2	1.4	2.6	2.7	0.5	1.6	7.7	5.3	4.8
sports/recreation	14.3	8.7	16.1	8.9	6.6	8.4	7.5	3.3	7.5	17.6	15.4	12.6
cultural activities	11.1	7.5	12.0	6.8	3.7	7.3	7.3	2.0	3.9	10.2	9.6	8.0
religious organisation	3.8	7.2	7.4	3.1	5.3	7.2	3.4	5.4	4.8	13.8	13.5	9.8
political parties/groups	7.9	1.6	3.9	18.4	1.9	2.0	7.4	1.3	4.1	7.0	4.4	4.6
welfare organisation	1.6	3.3	5.1	1.6	1.5	2.3	0.9	0.7	1.9	6.3	5.8	5.0
local community action	4.5	1.9	3.0	5.4	0.7	0.2	2.1	0.6	3.4	3.0	3.0	2.7
youth work	2.5	2.2	5.2	1.9	0.7	2.2	4.6	1.6	4.5	4.8	3.8	3.5
womens groups	2.0	2.3	3.5	0.9	0.3	1.5	2.5	0.3	1.5	3.8	2.6	2.5
environment, ecology, animal rights		1.7	5.7		0.7	1.6		0.7	1.2		4.9	4.6
none	26.8	66.8	59.7	31.7	68.6	72.2	39.9	83.4	73.7	43.8	52.4	57.3

Source: European Values Study (EVS). Only the largest shares of participation in civic organisations are included in the table.

From our data we can see that participation in civic organisations at the beginning of 1990s decreased the most in Estonia, along with the sharpest increase in inequality rates. Since then Estonia has become the most equal of the three, and participation rates in a least one association and organisation have also been steadily recovering, reaching the highest levels of all Baltic countries. In Latvia both the increase of inequality and decrease in participation rates was slower, yet as the inequality continued to increase in the 2000s, the participation rates from 1999 till 2008 continued decreasing. Thus, it seems that inequality could be one of the factors affecting citizens' participation.

Overall, since 1999, a slight recovery in participation rates in organisations has been observed in the Baltic countries, especially in organisations involved in cultural activities, sports, welfare organisations, youth work, women's groups, professional associations, environment, ecology, and animal rights, as well as other groups. Nevertheless, according to the latest Eurobarometer data, at the end of 2010 70% of people in Estonia, 71% in Latvia, and 78% in Lithuania did not belong to any nongovernmental organisations or voluntary associations (

Table 4.3). The most popular types of organizations or associations in the Baltic countries are leisure associations: sports clubs and education, arts, music or cultural associations, followed by religious or church organisations, charities, and trade unions. Other associations are represented by less than a few per cent of the population of the Baltic countries. In Estonia 2.2% of people also list themselves as members of political parties, 2.8% belong to professional organisations, and 2% to some interest groups, whereas in Latvia and Lithuania political organisations have attracted very few members. Overall, the non-governmental sector is much more developed in Estonia than in Latvia or Lithuania where the membership rates in voluntary associations remain well below other European countries. The recent economic crisis in combination with the drying up of funds that ensured the functioning of many NGOs puts many of them in a critical situation, since most are unable to survive from members contributions. If membership fees will be raised, it will not just push the poorest away from organisations, but it will further increase the inequality in participation rates between different social strata.

Table 4.3. Membership in civic organisations (% of adult population), 2010

	Estonia	Latvia	Lithuania	All countries included in Eurobarometer (average)
a sports club or club for outdoor activities	7.5	6.3	2.7	9.8
education, arts, music or cultural association	8.3	4.4	2.9	6.8
a charity organisation or social aid organisation	2.6	1.9	1.7	5.0
religious or church organisation	2.1	2.4	2.5	5.0
a trade union	3.4	3.2	1.7	4.0
a business or professional organisation	2.8	1.3	0.4	2.7
a consumer organisation	0.6	0.1	0.4	1.7
an international organisation such as development aid organisations	0.9	0.4	0.1	2.1
an organisation for environmental protection, animal rights	0.8	1.7	0.8	2.8
a leisure association for the elderly	2.4	1.0	0.8	2.5
an organisation for the defence of elderly rights	0.4	0.5	0.6	1.3
political party or organisation	2.2	0.5	0.9	2.7
organisation defending the interest of patients and doctors	1.1	0.3	0.7	1.8
other interest groups for specific causes	2.0	0.8	1.6	2.1
none	69.8	71.2	79.6	66.0
NA/DK	4.4	8.4	8.3	4.0

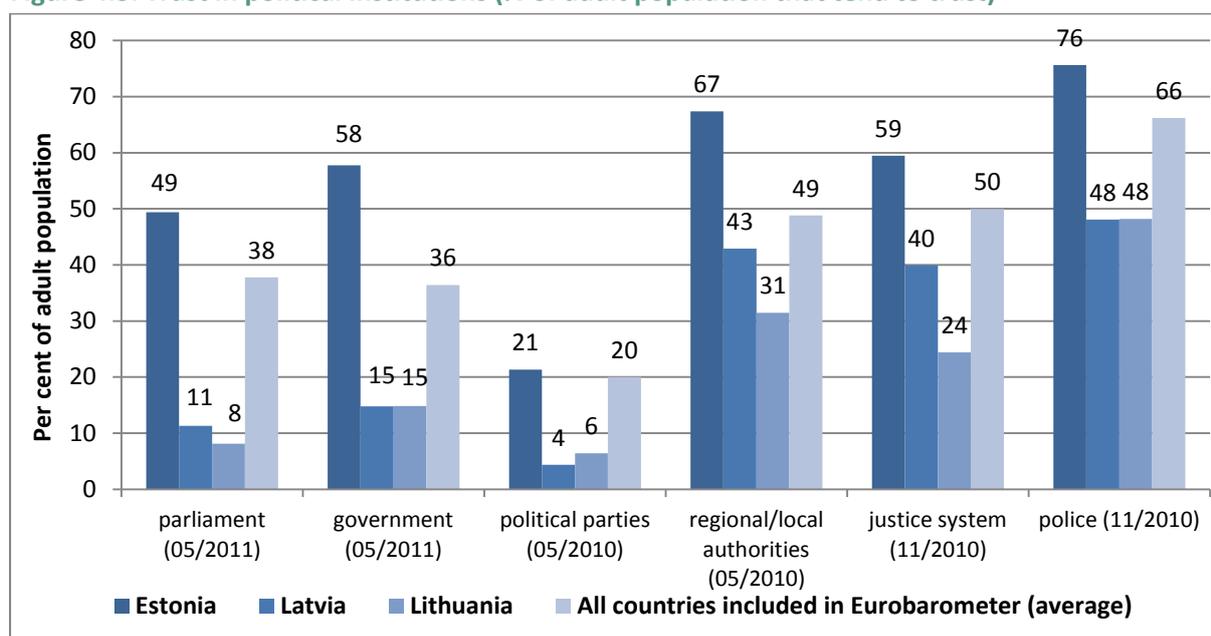
Source: Eurobarometer 05/2010.

4.3 Trust in others and in institutions

Political parties are and have always been the least trusted organisations in the Baltic countries. The levels of trust in the parliament and the government, on the other hand, used to be much higher in mid-1990s than they are now (Appendix 4.1.): the number of people who trust the government quite a lot or a great deal dropped from 38% in 1996 to 21% in 2008 in Latvia, from 50% to 36% in Estonia, and from 36% to 25% in Lithuania, while confidence in the parliament dropped to even lower levels. One of the possible explanations is the so-called 'post-honeymoon' effect (Howard 2003; Catterberg and Moreno 2006; Inglehart and Catterberg 2002). Still, even as the governments change and become more professional, distrust in political authority continues. It was further aggravated by the

recent economic crisis. According to Eurobarometer (2011) data not more than 15% of people in Latvia and Lithuania now trust the parliament and the government, which is one of the lowest levels of political trust in Europe. In Estonia that handled the crisis much better than its Baltic neighbours people have much more confidence in their political institutions: 49% trust the parliament and 58% - the government. In all Baltic countries people trust the local authorities more than the national authorities (Figure 4.3). Trust in the justice system in the Baltic countries differs: in Estonia 59% trust the justice system, whereas in Lithuania - only 24%.

Figure 4.3. Trust in political institutions (% of adult population that tend to trust)



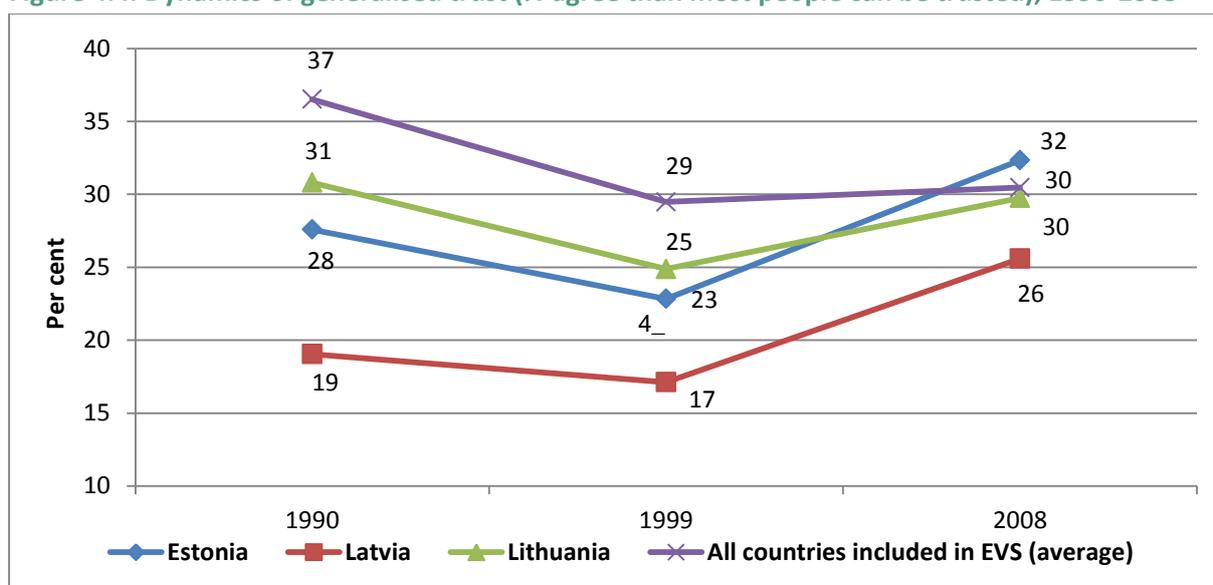
Source: Eurobarometer.

There are different opinions on why confidence in political institutions in the Baltic countries is so low. Some argue that it reflects the path-dependency of political culture: during the Communist times people learnt that institutions cannot be trusted (Howard 2003; Sztompka 1998). Others see it as a result of corruption and poor performance of political authorities (Mishler and Rose 2001; Catterberg and Moreno 2006). Finally, political cynicism and low political trust might be a result of inadequate transmission of democratic norms and values through family, schools and voluntary associations (Putnam, Leonardi and Nanetti 1993; Pietrzyk-Reeves 2008). Yet, research suggests that this could be related to higher levels of inequality. If the distribution of resources is very unequal, people do not expect to receive a fair treatment from the authorities, and do not have much confidence in them (Rahn and Rudolph 2005).

The organisation of social and political life during the Communist times left a certain mark on people's perceptions and attitudes, labelled as the 'culture of mistrust' (Sztompka 1995; Uslaner

2002; 2003). At the beginning of 1990s the levels of generalised trust in the Baltic countries were extremely low even compared to other CEE countries: less than one in three respondents agreed that generally speaking most people can be trusted, while at least two in three respondents replied that you can't be too careful in dealing with people (Figure 4.4). The process of transition accompanied by a rapid social and economic polarisation of the society damaged the levels of trust even further. Following the EU accession, the living standards started improving, and people begun trusting others more again: by 2008 in Estonia 32% agreed that most people can be trusted, in Lithuania – 30%, and in Latvia – 26%. Latvia has always had the lowest levels of generalised trust. In contrast, Estonia has one the highest levels of trust in all CEE countries, close to average in Europe. One of the factors contributing to higher levels of trust might be a more equal distribution of income (see Herreros 2004). Fortunately, trust levels started recovering after the countries joined the EU and the economic situation begun rapidly improving.

Figure 4.4. Dynamics of generalised trust (% agree than most people can be trusted), 1990-2008



Source: European Values Study.

The latest data about the levels of generalised trust comes from the Eurobarometer survey in 08/2010. The results confirm once more that Latvians are much less trusting than Lithuanians or Estonians. 29% have no trust in others whatsoever and believe that one certainly cannot be too careful dealing with others, and only 15% tend to trust most people (Appendix 4.2). From 29 countries included in the Eurobarometer survey, only Portugal and Cyprus reported lower levels of generalised trust than Latvia. In Estonia and Lithuania, compared to other countries, trust levels are average: 25% tend to trust others.

4.4 Political values and legitimacy

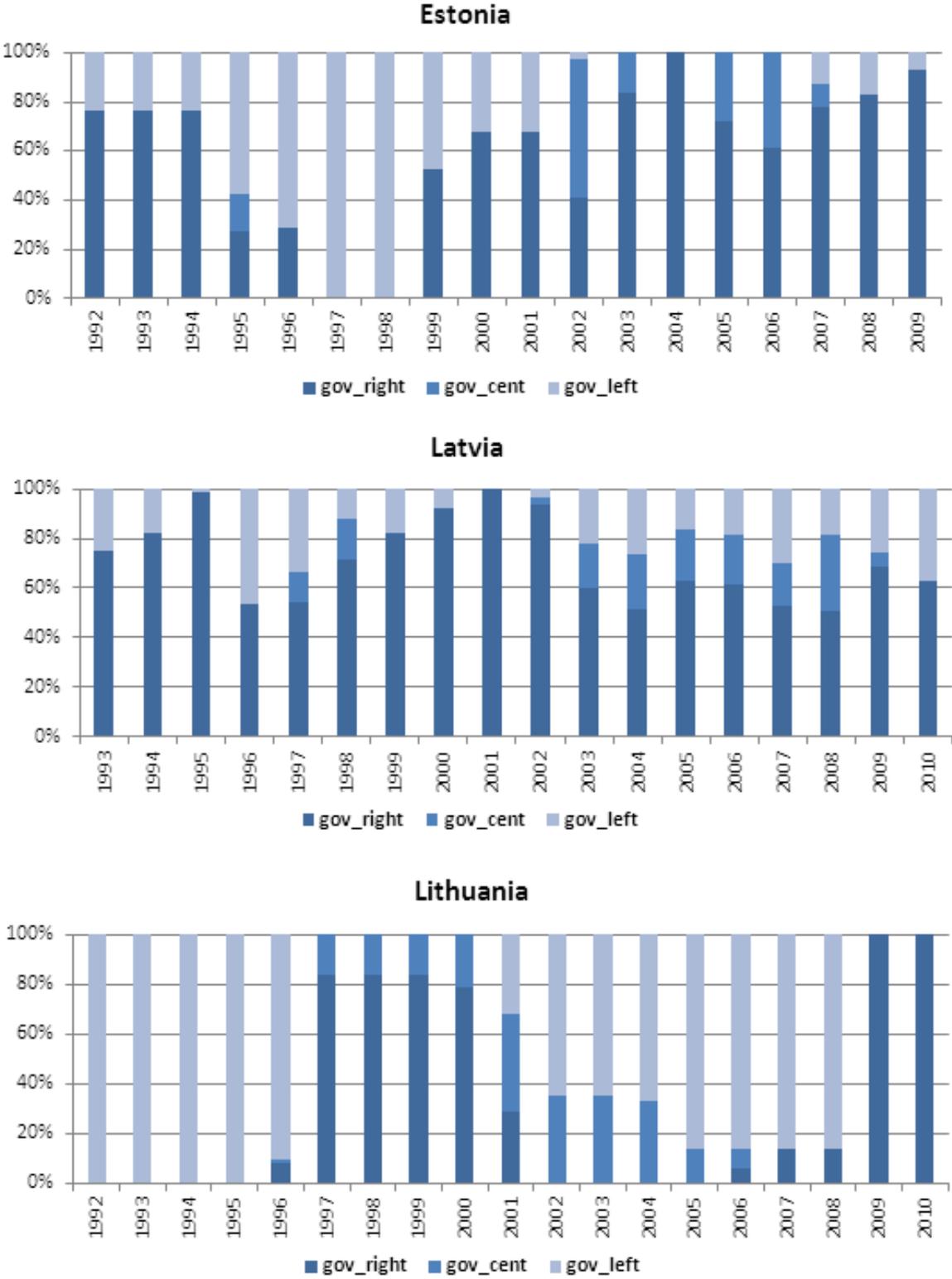
The party system in all Baltic countries is still quite fragmented and volatile (Armigeon *et.al.* 2012; Birch 2003). Often new parties are formed for elections, and old parties merge or split. In Lithuania the ideological composition of the parliament during the last 20 years has been very unstable: almost every election resulted in replacing the dominance of left-wing parties with the dominance of right-wing parties, or the other way around. The last, 2008 elections were won by a centre-right coalition, with the right-wing parties now fully dominating the parliament. In Estonia, right-wing (or rather right-centre) parties have been in the majority in the parliament for the most part of 2000s up to this day (Figure 4.5).

In Latvia right-wing parties have been also in the majority ever since regaining independence. Since the 2002 elections the composition of parliament has become more diverse: a significant number of seats were won by parties following different – socio-democratic or left-wing, centre, and right wing – ideologies. Nevertheless, the government was again formed by a right-wing and centre-right coalition.

The electorate in Latvia is very clearly split along the ethnic lines. The left-wing Harmony center has a loyal basis of Russian voters, and the "Latvian parties" do not differ much in terms of economic policies and political stance. In Estonia the Centre party is also becoming more dependent on Russian voters: while losing some Estonian voters, they enjoy the support of the majority of Russians.

Some scholars have questioned how applicable is the traditional left-right distinction in post-communist countries (Tavits and Letki 2009), while some others (Lipsmeyer 2000), have found at least some support to the party ideology and social welfare provision hypothesis in these countries. The data presented here shows that at the beginning of 1990 inequality significantly increased regardless of the ideology of parties represented in the parliament. In fact, the increase was slowest in Latvia under a right-wing government. In Estonia the inequality has been decreasing since 2000s with the parliament being dominated by right-wing parties, whereas in Lithuania the inequality begun rising again in 2004 under the left-wing government of Algirdas Brazauskas. Thus, it seems that the ideological composition of the parliament or the government is not directly linked to policies affecting inequality (see also Appendix 4.3).

Figure 4.5. Left-right government composition (%), 1993-2010

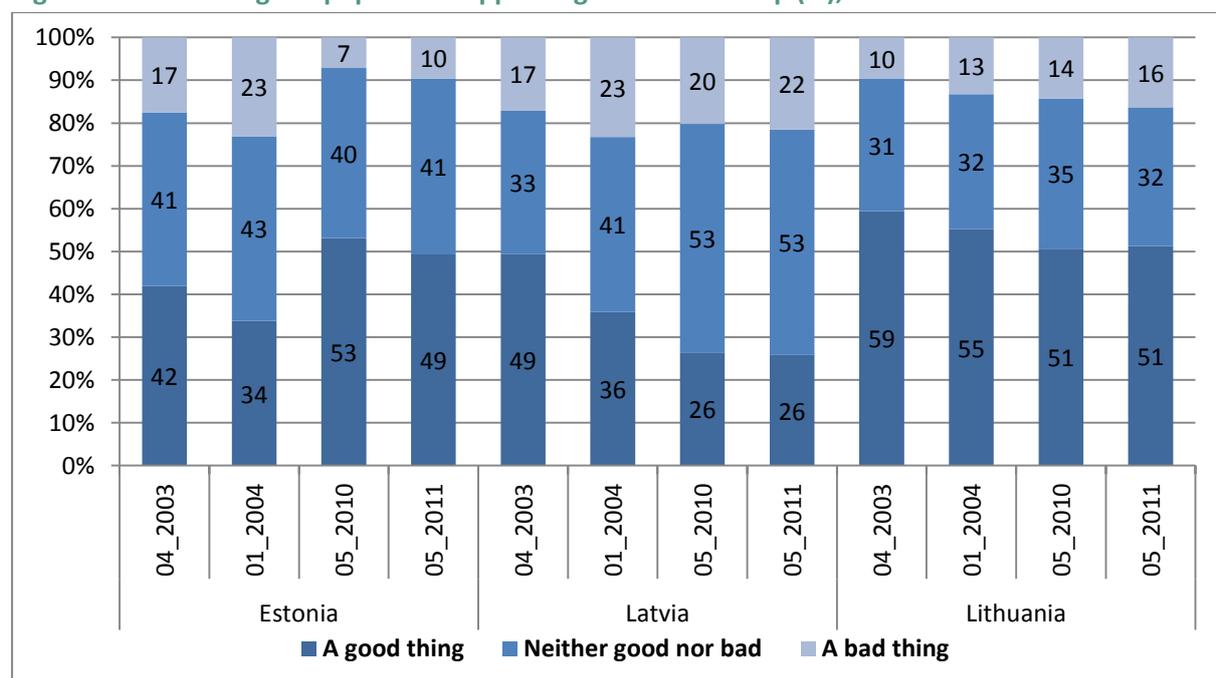


Source: Comparative Political Data Set III, 1990-2010 (Armingeon et.al. 2011).

Trends in the approval of EU membership in the Baltic countries have been very different. Of all candidate countries Estonians were initially the most sceptical regarding the benefits of EU

membership: before the EU accession referendum in 2003 only 42% thought that membership in EU would be a good thing. With time people's attitudes towards the EU have improved: currently about a half of the population agrees that membership in the EU is a good thing. Lithuanians have always held the most positive attitudes towards the EU: before the EU accession referendum 59% of Lithuanians believed that membership in the EU would be a good thing, after the referendum – 55%, and currently – 51% (Figure 4.6). Latvians, on the other hand, have grown increasingly disappointed with their country's membership in the EU. What seemed like a good idea to 49% of people before the referendum in 2003, now finds support only among 26% of the population. Of all EU 27 member states people in Latvia are the most disappointed with their country's EU membership. One of the reasons could be the recent economic crisis, but it is certainly not the only one. Unlike in Greece, in Latvia the crisis did not lead to a widespread hostility towards certain international institutions. For the most part, people tended to blame banks and the lack of activity in limiting the overheating of the economy by their own national government. One must also note that in Latvia the increasing disappointment with EU membership went hand-in-hand with a continuing increase in inequality, while in Estonia where inequality is decreasing peoples' attitudes towards the EU are improving.

Figure 4.6. Percentage of population approving EU membership (%), 2003-2011



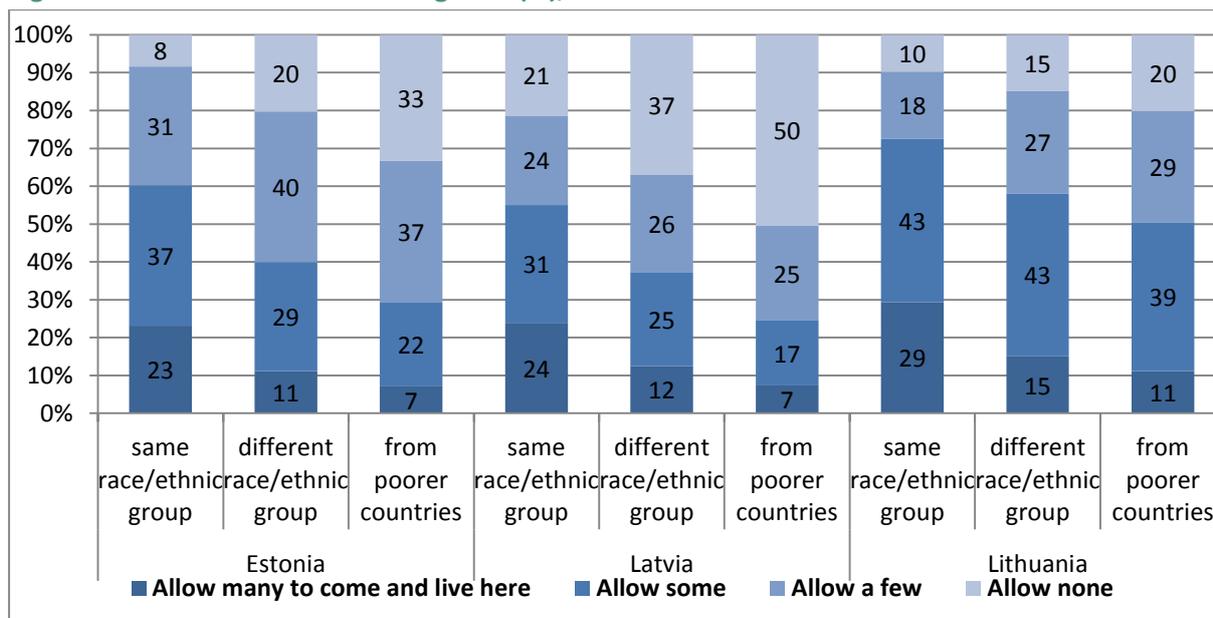
Source: Eurobarometer.

According to ESS data, attitudes towards immigrants in the Baltic countries are much more negative than in most other countries in Europe. One in two people in Latvia, one in three in Estonia, and one in five in Lithuania think that their country should not allow anyone from poorer countries outside

Europe to come to live there (Figure 4.7). The negative attitudes towards migrants can partly be explained by the history of the Soviet occupation, but they are also fuelled by economic struggles and high levels of inequality. Research has shown that poverty, socio-economic risks, and decreasing trust in institutions - factors often accompanying economic stratification - contribute to intolerant attitudes towards immigrants (Paas and Halapuu 2012). Attitudes towards people of the same race or ethnicity as the majority of the population are much more accepting as towards people of a different race or ethnicity. 55% of people in Latvia, 60% in Estonia, and 72% in Lithuania have nothing against their country accepting at least some immigrants of the same race or nationality as the majority group.

Of all Baltic countries, people in Latvia are the most xenophobic. Of all the Soviet Republics, Latvia experienced the largest inflow of migrants from the Soviet Union, most of who arrived to work in the country’s growing manufacturing sector (Dreifelds 1996). By 1989 34% of the population were of Russian ethnicity, compared to 10% before World War II. After regaining independence economic and political struggles fuelled national tensions. Russian immigrants were often labelled as “Soviet occupants”, and deemed unwelcome. As a result, many left the country. Currently about 27% of the population of Latvia are Russian, and 11% belong to other minority ethnic groups (most are Russian-speaking). Estonia too has a notable Russian minority – 25%. Lithuania did not experience an inflow of migrants of that magnitude, therefore the attitudes towards migrants nowadays are more positive.

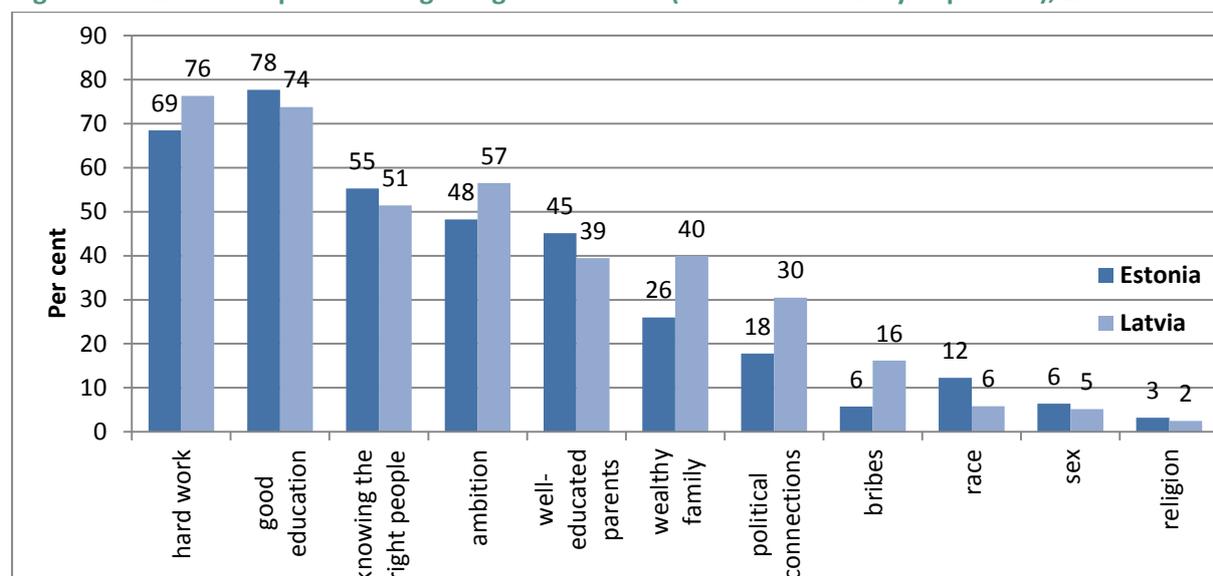
Figure 4.7. Attitudes towards immigrants (%), 2008



Source: European Social Survey (ESS) Round 4, 2008.

According to the latest ISSP data (2009), most people in Latvia and Estonia see hard work and good education as cornerstones of success (Figure 4.8). About a half thinks that ambition is very important. In Latvia in particular, the economic position of parents also plays a significant role in the life chances of a person: 40% believe that wealth of the family is important for getting ahead in life. In this way, economic position is transmitted from generation to generation. Estonians find parents education to be more important for success. Informal ways of gaining influence - knowing the right people and having political connections - are still important in Latvia (less so in Estonia), even though their importance is decreasing. Race, sex, and religious affiliation do not seem to be important factors in the Baltic countries. The reason for that is that in the Baltic countries: i) there are not many people of a different race, ii) the employment rates of women have always been high; iii) religion is not important in most people's lives.

Figure 4.8. What is important for getting ahead in life (% essential or very important), 2009



Source: ISSP 2009.

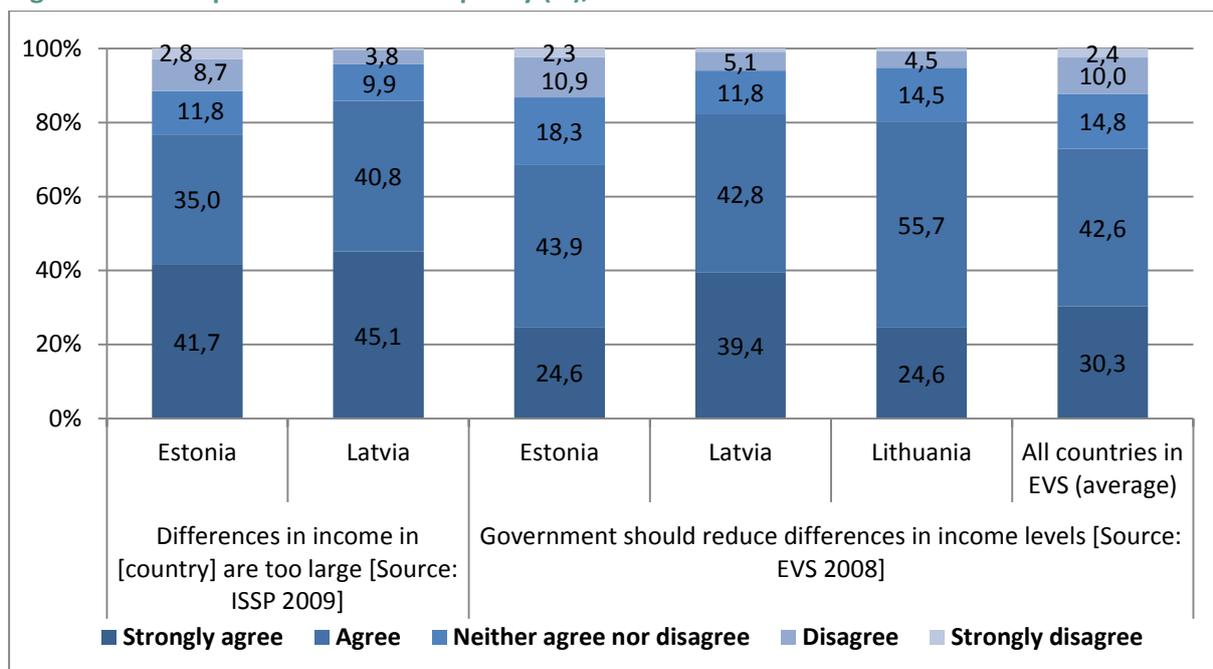
Lithuania did not participate in the 2009 ISSP, but the data from the World Values Survey (WVS) (1999) suggest that Lithuanians are more sceptical than Latvians or Estonians regarding hard work bringing success: 29% of respondents in Estonia, 39% in Latvia and 51% in Lithuania tended to agree that hard work doesn't generally bring success - it's more a matter of luck and connections (6 on more on a scale from 1 to 10). A perception that success can be achieved with the help of connections rather than hard work can facilitate corruption and nepotism, lessening motivation to invest in education and personal development. A situation when success depends on family wealth or education, connections or bribes, not hard work and education, only deepens inequalities in the society (see Uslaner 2008).

4.5 Values about social policy and welfare state

Data on attitudes towards the distribution of wealth in the society reveal that most people in the Baltic countries see the differences in income as too large (Figure 4.9). Latvians’ attitudes can partly be explained by the fact that the distribution of income in their country is indeed one of the most unequal in Europe. However, the data shows that citizens of all post-communist countries desire a more equal society. Under the Communist regime everyone was supposed to be equal, thus, the large increase in inequality after the liberal reforms of 1990s struck many as unfair and unjustified, especially considering that a lot of wealth was made during the transition using corruption or some shady schemes, (Ledeneva 1998; Karstedt 2003). The majority of people in the Baltic countries – 68% in Estonia, 82% in Latvia and 80% in Lithuania - think that the government should reduce differences in income levels (Figure 4.9). Moreover, the number of people who feel strongly about this issue in Latvia is almost 40%. There are comparatively more people who oppose this idea in Estonia (13%) where the income inequality is not that high.

Despite the fact that most people in the Baltic countries share socio-democratic ideals, they vote for center-right or right-wing parties. It demonstrates that votes are often cast not based on party ideologies, but other issues, such as the previously mentioned ethnic division or post-communist/communist division. There are no strong socio-democratic parties of the Scandinavian type in the Baltic countries.

Figure 4.9. Perception of income inequality (%), 2008-2009



Source: ISSP 2009 and ESS 2008.

Since 2008 when the ESS was conducted in the Baltic States, even more people have become convinced that the government should address the issue of inequality. According to the latest ISSP data, in the summer of 2009 - right before the crisis hit Latvia - almost a half of the population strongly agreed that it is the governments' responsibility to reduce the income differences in Latvia (Appendix 4.4.). In Estonia the ISSP fieldwork was conducted when the economic crisis had already begun: in the summer of 2010. 42% - many more than in 2008 - expressed a strong support for the idea that the government should do something to reduce income inequality in Estonia.¹²

In addition to expecting the government to reduce income differences in the society, most people¹³ in Latvia also see the government as responsible for ensuring that everyone is provided for (

Figure 4.10). Under the Communist system health care and education were free, the state guaranteed a job for everyone, and heavily subsidised prices of housing and basic goods. The experience of state socialism has left a significant demand for high levels of state provision. At the beginning of 1990s people in the Baltic countries had very high expectations towards the state, expecting it to provide everyone with a decent standard of living. These expectations have since decreased. People in all Baltic countries have become more aware of their individual responsibility for their own faith. Except for Latvia, their expectations from the state now do not differ much from citizens of other European countries.

Government welfare policy in the Baltic States during the last 20 years has not reflected the expectations of citizens. In fact, all three countries spend very little on social protection - one of the lowest amounts in Europe (Eurostat 2009), in this regard resembling countries of the liberal type. This approach is not driven by ideology, but rather the limited possibilities of the state to provide social welfare.

Compared to other countries, in Estonia and Lithuania poor people are rarely blamed for their misfortunes: only 21% of the population see laziness or lack of willpower as the main reason why people live in need (

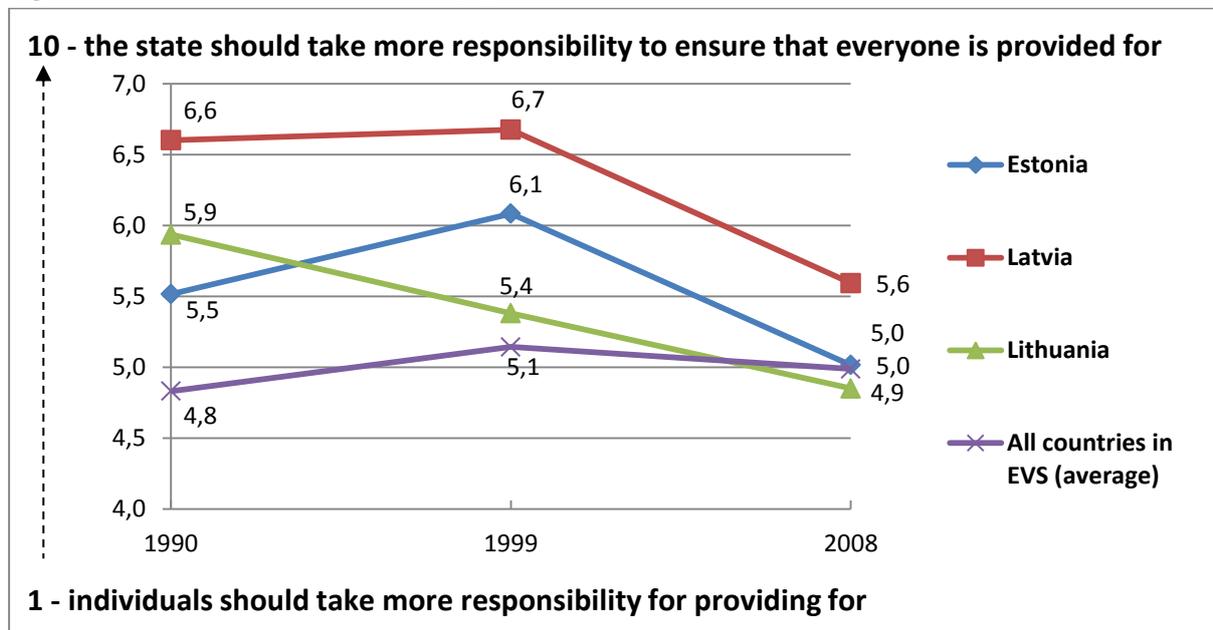
Figure 4.11). In Latvia the opinion that laziness is the main reason why some people are poor has been constantly becoming more widespread: in 2008 38% blamed poverty mostly on poor people themselves. Since joining the EU Latvia had experienced one of the highest real GDP growth rates in

¹² One has to be careful interpreting these results, since the question wording in ESS and ISSP slightly differs.

¹³ Slightly more than 50% gave an answer 6-10 on a scale from 1 to 10, where 1 means 'individuals should take more responsibility for providing for themselves' and 10 - 'the state should take more responsibility to ensure that everyone is provided for'.

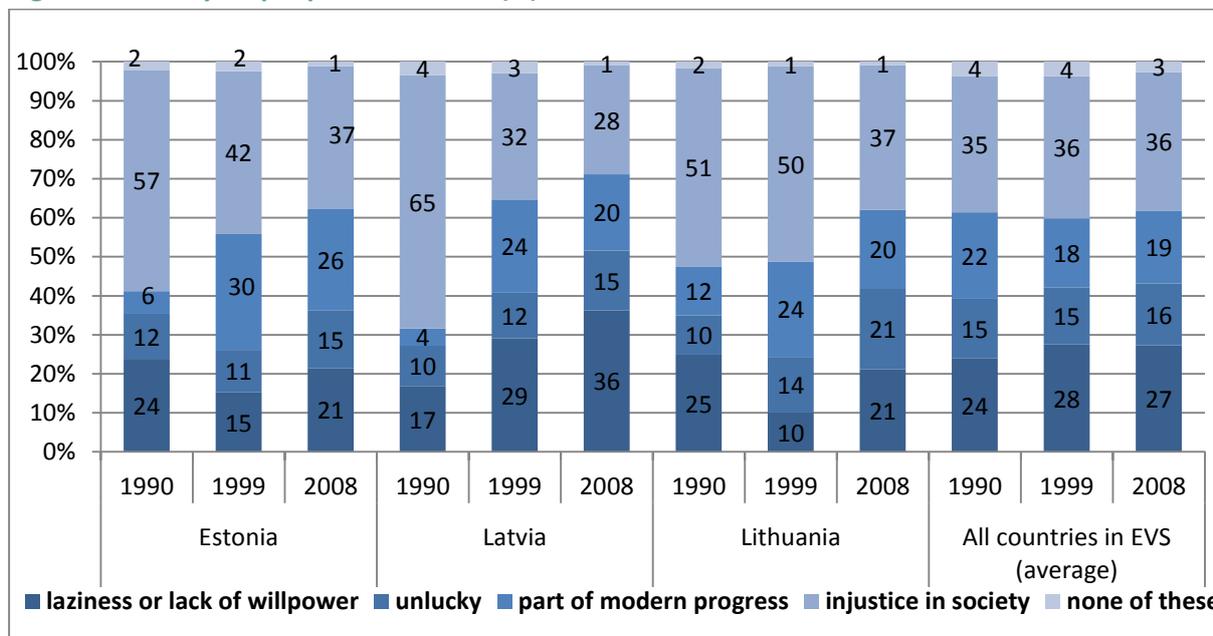
Europe. Unemployment was extremely low and wages were increasing. In circumstances like these, if someone still lived in need it could be perceived as a result of laziness or willpower. Nevertheless, such attitudes are not conducive to solidarity, and can lead to social exclusion of the poor.

Figure 4.10. Social welfare attitudes (%), 1990-2008



Source: EVS.

Figure 4.11. Why do people live in need (%), 1990-2008



Source: EVS.

Due to the specific ethnic composition of the population, and the history of Soviet occupation, people of the Baltic countries – in particular in Latvia and Estonia – are most divided along the ethnic lines. Latvia has a large Russian minority, even out-numbering Latvians in some of the largest cities. Even though there is no open conflict between the two main language groups, they are quite isolated from each other information-wise, and from time to time tensions escalate (Zepa 2001). In the recent years in Latvia there have been at least two massive mobilisation cases related to the ethnic dimension: the school reform of 2004¹⁴, and the 2011 referendum about the Russian language as the second state language. As a result, ethnic tensions have increased, and nationalistic sentiments are growing among people of both Latvian and Russian ethnicity. In Estonia, a rare escalation of ethnic tensions was observed in relation to the reallocation of the statue of the Bronze Soldier in 2007, which led to two nights of riots in Tallinn (known as the Bronze Night). A few other incidents have happened during the last 20 years too, even though normally the ethnic tensions do not escalate into an open conflict.

Ethnic tensions, even if they do not take a form of an open conflict, undermine solidarity, and can lead to social exclusion and discrimination, deepening the economic inequality. Ethnic diversity in the Baltic countries is the main basis of discrimination: 6% of the population of Latvia and 4-5% in Estonia feel that they are being discriminated against on the basis of their nationality or their language (ESS 2008). Unfortunately no good comparative data has been gathered that would allow assessing the level and dynamics of ethnic tensions in the Baltic countries.

4.6 Conclusions

After a period of massive political mobilisation in the Baltic States at the end of 1980s – beginning of 1990s many became disillusioned with their political leaders and the political process in general. As a result, political and civic participation – voter turnout, trade union density, and membership in other voluntary associations - significantly decreased. Without a strong network of nongovernmental organisations (trade unions, political parties, professional associations, etc.), it is difficult to ensure a pluralistic polity and a balanced representation of different views in interests in the political arena. A country where political participation rates are low is more likely to be dominated by narrow interests of certain economic and political elites at the advantage of everyone else. Thus, “the weakness of civil society” in the Baltic countries could have contributed to the high levels of inequality there. A better organised civil society might be one of the reasons why from all the Baltic countries only

¹⁴ A wide range of mandatory classes in Latvian were introduced in minority (mostly Russian) schools prompting discussions about discrimination of minority groups.

Estonia has managed to decrease the levels of inequality since the beginning of 1990s and why it is currently the most equal of the three. Since the beginning of 1990s participation rates decreased the most among the poorest groups of society, making it more difficult for them to articulate their interests and be efficient in influencing government policy. Thus, an increase in economic inequality went hand-in-hand with an increase in political inequality. Moreover, inequality seems to be linked with voter turnout: only in Estonia where inequality is decreasing, one can observe a slight increase in voter turnout in parliamentary elections.

All Baltic countries inherited from the Communist regime extremely low levels of generalised trust, however, trust was destroyed even further by the liberal reforms of the transition and the following social and economic polarisation of the society. Increasing inequality might have also been one of the factors contributing to the large drop in the levels of political trust in the Baltic countries during the 1990s. The fact that people in Estonia were more trusting and had more confidence in their institutions most likely contributed to its comparatively good economic performance during the transition as well as the recent economic crisis (see Uslaner 1999; Rose and Shin 2001).

Currently all Baltic countries have parliaments dominated by right-wing (or rather centre-right) parties. However, it does not seem that the ideology of governing parties is strongly linked to policies affecting inequality.

Like in other countries, economic position of parents is often transmitted from parents to children: the wealth of the family and the level of education of parents help one to get ahead in life. But more importantly, *blat* relations, political connections and bribes are still an important part of success, especially in Latvia and Lithuania. This plays to disadvantage of poorest, since the people they know are likely to be similar to themselves, thus, can provide little help. Moreover, poor people cannot afford to give bribes and invest in connections that can later help them to get around the law or advance their interests (Uslaner 2008).

The fact that many believe that wealth is mostly acquired in an unfair manner – using connections or bribes – is one of the reasons why most people in the Baltic States do not see the current levels of inequality as justified. Majority of people, especially in Latvia and Lithuania, want their governments to decrease the income differences between the rich and the poor. Since the recent economic crisis people have become even more convinced that the government should address the issue of inequality.

Demands for more equality are also partly linked to the Communist past. The experience of state socialism also left a significant demand for high levels of state provision. However, the perceptions regarding the state being responsible for providing everyone with a decent standard of living, are

changing. Nowadays, except for Latvia, citizens of the Baltic countries do not expect from the state more than citizens of other European countries. Instead, there is an increasing tendency, especially Latvia, to blame the poor themselves for their misery.

Social polarisation in the Baltic States is mostly based on the ethnic dimension. After experiencing a large wave of immigration during the Communist times, people still bear very negative attitudes towards immigrants. There is a large Russian-speaking minority in Latvia and Estonia, and ethnic or language group is the main grounds for discrimination. A large proportion of inhabitants of Latvia (14.6%) are non-citizens with limited political rights and opportunities to be employed in certain public sector jobs, further contributing to inequality. The analysis shows that economic inequality and social polarisation in the Baltic countries is linked to a wide array of attitudes. Reducing it could contribute to a more trusting, better connected, and more efficiently functioning society.

5. Effectiveness of policies in combating inequality

5.1 Minimum wages and collective labour agreements

Minimum wages were introduced in the Baltic States together with other market economy institutions at the beginning of the transition from socialism to a market economy in 1991. In the Soviet system wages were controlled administratively and the wage distribution was rather compressed; as a result, after the liberalisation of wage setting wage inequality increased tremendously. Baltic States have used single statutory national minimum wage that applies to all employees without distinction (Masso and Krillo 2010)¹⁵. Such an arrangement is exceptional in Europe where usually differentiated rates apply to workers depending on where they work and/or their personal characteristics and work situation. In all the Baltic States representatives of employers and employees participate in the national minimum wage setting process (see also Eamets *et al.* 2007) and there has been an active social dialogue around the minimum wage fixing. Different social partners have had different standpoints regarding the minimum wage, e.g. fighting with poverty, reduce the emigration of workforce, higher tax revenues in the conditions of non-reported income, discussions about further differentiation of the minimum wage or its effects on collective bargaining (Masso, Krillo 2010). Still the existence of the minimum wage and its effects has not been a major issue in the Baltic States over the years (European Foundation 2006).

The increase of the minimum wage (later also MW) may seem quite impressive in the absolute terms (see Table 5.1), however that reflects the high wage growth in years till 2008. Thus, over time there has occurred a convergence in the minimum wage – average wage ratio (Kaitz index) in three Baltic States and by 2007 Kaitz index was at a comparable level in the Baltic States (though still somewhat lower to the old EU member states), but since 2009 the index has further declined in Estonia. Although in Estonia in 2001 an agreement was signed between employees and employers to raise the ratio of minimum wage to average wage by year 2008 to the 41% level (the average level of the EU countries this time, Kriis 2001), that was not achieved. One explanation is that at least in Estonia minimum wage has not been the most important issue for the trade unions, as trade union members typically earn more than the minimum wage. Also during the crises years minimum wage stayed at

¹⁵ Though there is some differentiation in Latvia. The minimum wage for people who are sentenced and are serving their time in prison is 50% of the normal minimum wage. For minors who are sentenced it is 50% of the minors minimum remuneration. Concerning the hourly minimum rates, for adolescents and those at some special risk, the minimum hourly wage rate for 2012 is slightly higher (LVL 1,360) than for the others, since according to the law they are allowed to work only seven hours a day and 35 hours per week.

the level of 2008 in Estonia and Lithuania; while in Latvia the increase of 13% in the beginning of 2009 was not reversed later.

Table 5.1. Minimum wage and average wage developments, 1995-2011

Indicator	Country	1995	1999	2003	2005	2007	2009	2011
MW level (EUR)	EE	30.0	79.9	138.0	171.9	230.1	278.0	278.0
	LV	40.6	79.9	109.3	114.9	171.4	255.1	283.2
	LT	25.8	100.8	124.5	144.8	173.8	231.7	231.7
Increase of nominal MW (%)	EE	50	14	17	8	20	0	0
	LV	0	4	17	0	33	13	11
	LT		3	0	16	9	0	0
Increase of real MW (%)	EE	16	10	15	4	12.6	0.1	-4.8
	LV		2	13	-6	21.1	8.7	6.4
	LT		3	1	13	0.9	0.9	0.9
Average wage (EUR)	EE	158.5	283.8	429.7	516.0	724.5	784.0	830.8
	LV	130.5	225.4	299.7	353.3	567.8	653.3	656.9
	LT	91.9	231.5	310.8	369.6	522.0	595.5	592.5
MW as % of average wage	EE	18.9	28.2	32.1	33.3	31.8	35.5	33.5
	LV	31.1	35.5	36.5	32.5	30.2	39.0	43.1
	LT	28.1	43.6	40.1	39.2	33.3	38.9	39.1
Hourly MW, EUR	EE	0.17	0.47	0.82	1.02	1.73	1.73	1.73
Hourly AW, EUR	EE	0.94	1.69	2.53	3.03	3.5	4.80	5.04

Source: updated version of the table in Masso and Krillo (2010), national statistical offices, Eurostat.

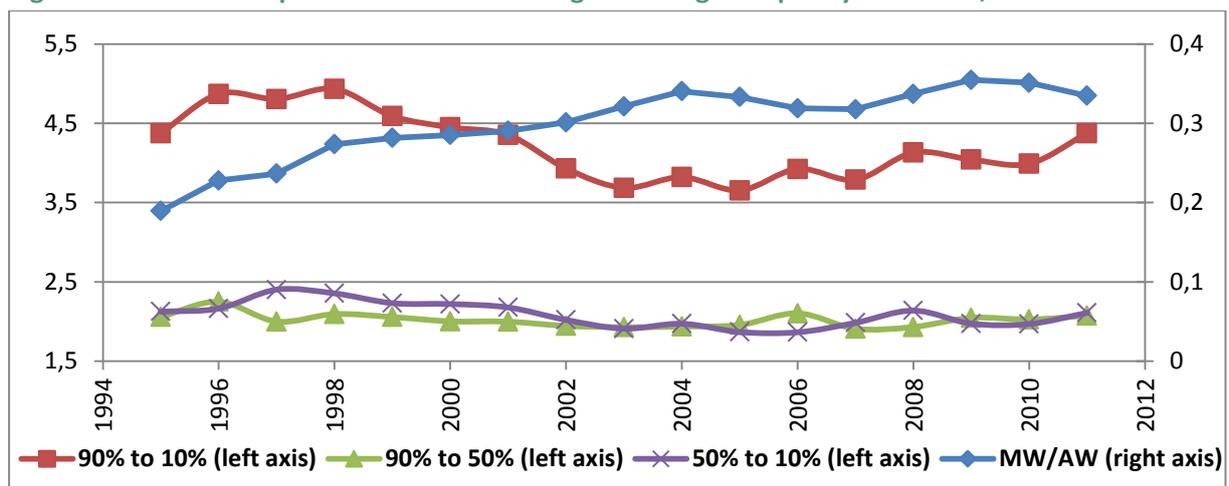
The importance of minimum wages in terms of the proportion of full-time employees earning the minimum rate has varied considerably between the Baltic States; it has varied around 5-6% in Estonia, but the Latvian and Lithuanian figures were in some years among the highest among the EU countries (in Latvia 16.7% in 2001, in Lithuania 12% in 2004), which is surprising given the modest level of the minimum wage. Given that in the Baltic States the minimum wage is imposed nationally, in principle no full-time employed persons should earn below the statutory minimum, still according to Hinnoaar and Rõõm (2003) ELFS data for 1995–2000 show that about 8 per cent of people earned wages below the legal minimum. One way employers use to evade the MW regulation is to offer a contract for a smaller amount of hours, but still require to work more, which workers may accept due to low bargaining power in conditions of high unemployment. The number of people earning the minimum wage could be affected by the widespread (though probably decreasing) unreported wages (so-called ‘envelope wages’) in the Baltic States (Masso and Krillo 2010). The decreasing number of

minimum wage recipients during the recent recession in 2009 despite the increased minimum wage-average wage ratio could be explained by the fact that during the crisis many low-paid employees lost their jobs (Masso and Krillo 2011).

We next turn to the effects of MW in the Baltic States, including effects on poverty and inequality. Masso and Krillo (2010) showed that while in Estonia from 1997 to 2000 the absolute poverty line was higher than the minimum wage, in 2001 the trend reversed and since then the minimum wage/poverty line ratio has increased rather rapidly, reaching to 1.44 in 2006. Thus, increases in minimum wages may have had a positive effect on poverty reduction, but probably other factors such as a strong economic growth, declining unemployment and the general increase in wages have also played a role. The possible effect of MW on the wage compression could be reduced by the MW spillover effects. In Bank of Estonia’s wage survey 30 per cent of respondents answered “yes” to the question ‘Do minimum wage increases influence the wages of workers earning more than the minimum wage?’ (Rõõm and Uusküla 2006).

So we can conclude that relatively wide spill-over effects in Estonia could limit the impact of minimum wages on wage compression. Figure 5.1 below shows that in some periods we can indeed see the expected relation between wage inequality measures and MW-AW ratio, like the decreasing inequality (both in the lower part of the wage distribution and the overall inequality) from 1998 to 2003 in conditions of increasing MW and increasing inequality in 2011 in case of declining Kaitz index.

Figure 5.1. The developments of minimum wage and wage inequality in Estonia, 1995-2011



Source: wage inequality data – own calculations from Estonian LFS data.

Concerning the MW impact on employment, Hinnosaar and Rõõm (2003) by studying the MW changes during 1995-2000 found a relatively small size of the effects (10 per cent increase leading to

employment reduction in the range of 0.43 per cent to 0.66 per cent among the workers directly affected by the change) explained in their view with the low compliance with minimum wage regulations. Hazans (2007) found for Lithuania (and less for Estonia) MW to have a positive effect on labour force participation.

National minimum wages are in the Baltic States more important due to the rather lower density of trade unions and low coverage of trade unions. In Estonia during 2005-2010 the union density was around 8-9% according to LFS data (Masso and Krillo 2011); for Latvia and Lithuania the numbers have been larger, in 2004 respectively 16 and 14% of all employed persons. Thereafter, the union membership declined considerably in both Latvia and Lithuania, reaching to 2008 about 13 and 8% of the employed people respectively (Carley 2008, own calculations). The coverage by collective bargaining has been somewhat higher, 22-26% in 2002 (Masso and Eamets 2007). According to Estonian Work Life survey data collective agreements are present only in *ca.* 6% of organizations, mostly the larger ones (Espenberg *et al.* 2012). The reasons for the low coverage with collective agreements include both society and organizational level reasons. From the society level factors the main reason is that due to the Soviet background the trade unions movement has not developed in the same ideological basis than in developed countries. Among the different levels of wage bargaining, the company level is the most important one in the Baltic States, while sectoral bargaining is very weak or marginal in all Baltic States, regional level bargaining is missing (with the exception of Ida-Virumaa in North-East of Estonia) and national level bargaining involves setting the national minimum wage (Eamets *et al.* 2007). As the result, the centralization of the wage bargaining has been one of the lowest in the EU; similarly coordination of wage bargaining has been practically non-existent with only modest national coordination mainly on minimum wages (Visser 2005). Most of the sectoral level bargaining takes place in the public sector or sectors with large privatised enterprises. The bargaining has been hampered by the institutional weakness of the unions and employers organizations, like scarce resources of unions, diversity of employers, and large share of the SMEs in the economy.

Concerning the impact of unions on wage formation, the wages of union members have been in some periods higher than the wages of non-members (e.g. in Estonia +10% in 2005, -5% in 2007, +11% in 2010; Masso and Krillo 2011). However, it is not sure whether that is the effect of the unions or the influence of other factors since there is no in-depth analysis done in the Baltic States to analyse whether and to what extent trade unions influence the wages of the members¹⁶. Eamets and

¹⁶ We would rather believe that there is not much effect given that collective agreements are present in a rather small percentage of organizations of which a large proportion are the public sector organization. Among

Kallaste (2004/2005) by using propensity score matching to match union members with similar (in terms of personal characteristics) non-members showed that the Estonian unions do not have enough bargaining power to receive wage premiums. They argued that the bargaining power of unions has been decreased in some sectors like textiles by foreign competition and the possibility of changing the location of production of foreign firms, while on other sectors (like health care) increasing international labour migration is increasing the bargaining power of unions. Also the study by Rõõm and Uusküla (2006) on wage formation and wage flexibility in Estonian enterprises showed that the impact of trade unions on wage changes was modest. When firms were asked which factors would constrain them from a 20% wage reduction, only 8.8% responded that a wage agreement with the union would do that. Masso and Krillo (2010) showed in their study how due to effective collective bargaining in the health care sector both minimum and average wages in the sector rapidly increased till 2008, though with certain drawbacks (e.g. the collective agreements have failed to include some health care specialist¹⁷).

Still, during the recent crises union members did somewhat better in terms of employment and wages, e.g. in the energy sector (Masso and Krillo 2011). The recent State and Local Government Authorities Industrial Relations Study (2011) showed that during the implementation of the austerity measures trade unions had rather low power to resist the crises measures like wage cuts; in fact the bargaining power of the employees depends much more on the labour market situation than the unions' activities. In sum, the impact of unions and collective bargaining on wages has been limited to some sectors only.

5.2 Taxation (levels/trends, policies and policy intentions/discourse)

The overall share of taxation and public spending as a share of GDP has been relatively low in the Baltic States (Masso and Espenberg 2012). During the re-independence period the Baltic States have been mostly governed by right-wing parties and the principle of limited size of government has been followed. The lower share of government expenditures in GDP reflects also the lower GDP per capita of these countries (Staeher 2010). Still, even compared to the other countries at similar level of development, like the Central European countries (for example Hungary and Poland), the Baltic States have introduced only a relatively small public sector with a limited provision of services.

the latter the wages are to large extent determined by the local government or central government and the head of the organization has rather limited possibilities to influence the wage level.

¹⁷ Health care sector is also an interesting case as here we can basically talk about the sectoral level agreement. Some failures in negotiations are also due to some cooperation problems between different trade unions in the health care sector.

During the recent crises the share of tax revenues in GDP decreased in Latvia and Lithuania, but increased in Estonia, reflecting the different fiscal situation and policies in three countries: Estonia had rather strict policy in order to cope with Maastricht criteria and join the Euro-zone (both cost-cutting and revenue enhancing policies), Latvia turned to IMF and Lithuania managed to have substantial deficits (-8.2% in 2009) without turning to IMF. In fact the tax policy has to some extent pro-cyclical and has perhaps amplified the business cycles; for example, in Estonia there were tax cuts during 2006–2007 and tax increases in 2009 (OECD 2009), namely in income tax and unemployment insurance tax (see Masso and Krillo 2011 on the latter).

All Baltic States have relatively more relied on the indirect taxes during the re-independence period. In case of Estonia we can see its share even increasing during the last year (it is related to the increase of VAT in 2009 from 18% to 20%, but also the increase in excise duties). Taxes on income are relatively low compared to other EU countries; that reflect the relatively low and decreasing tax rates on personal income but also on capital income. Concerning the latter, since 2000 in Estonia the taxation of corporate profits is postponed till these are distributed to shareholders, i.e. retained earnings are tax exempt. Estonia introduced a proportional income tax rate with tax free minimum already since 1994. The relatively higher social contributions in the form of payroll taxes reflect that these are used to finance the various social expenditures (similarly to the continental European social model). The tax burden on wages in Estonia has been somewhat higher than the OECD countries' average, while the tax burden on capital is lower than the EU average (Rõõm, 2003¹⁸); that is reflected also in the relatively high share of labour taxes and low share of capital taxes in total tax revenue (Võrk *et al.* 2007. Azacis and Gillman (2010) argue based on the theoretical endogenous growth model that more balanced taxation between capital and labour would have increased the welfare in the Baltic States. All this has important implications for income distribution and inequalities.

Võrk *et al.* (2007) analysed the impact on tax policy on the distribution of tax burden of households (measured either as the share of taxes incomes, expenditures or the Kakwani index) by using the Estonian household budget survey data from 2000-2007 and the micro-simulation model. As expected, consumption taxes (like value added tax) are highly regressive in respect to income due to the higher savings rate in higher deciles (e.g. loan paybacks and deposits), i.e. in the 1st decile expenditures are higher than incomes; in the 1st decile VAT constitutes 14% and in the 190th 10-11% of expenditures. On the other hand, VAT is neutral in respect to consumption expenditures. Estonia has relatively few exceptions of VAT (e.g. there is no lower VAT on food products) and their impact is

¹⁸ The situation has not changed much since the publication of that study.

small (the same can be also said about Latvia and Lithuania, see VAT Rates Applied...2012). Among different goods and services, the most regressive one is the VAT paid on medicines and other medical goods. The share of excise taxes on alcohol (especially vodka) and especially tobacco in total expenditure are also lower in higher deciles (i.e. these are clearly regressive).

Table 5.2. Tax revenues in the Baltic States as a percentage of GDP, 1995-2010

Country	1995	2000	2003	2005	2006	2007	2008	2009	2010
Taxes on production and imports									
EE	13.1	12.3	12.1	13.4	13.5	13.5	12.3	15.0	14.2
LV	14.1	12.4	12.1	12.8	13.2	12.6	11.2	10.9	11.5
LT	12.0	12.5	11.7	11.3	11.4	11.9	11.8	11.8	12.1
EU27	12.9	13.7	13.3	13.4	13.5	13.5	13.1	12.9	13.2
Taxes on income									
EE	10.9	7.7	8.0	7.0	7.1	7.4	7.8	7.6	6.8
LV	7.1	7.2	7.4	7.7	8.3	8.9	9.5	7.0	7.1
LT	8.3	8.3	7.9	8.9	9.5	9.1	9.3	6.0	4.7
EU27	11.6	13.0	11.6	12.0	12.6	12.8	12.5	11.6	11.5
Social contributions									
EE	12.3	10.9	10.6	10.3	10.1	10.5	11.6	13.1	13.1
LV	12.0	10.0	8.9	8.4	8.8	8.7	8.3	8.5	8.4
LT	7.2	9.3	8.5	8.1	8.4	8.5	8.9	11.6	10.4
EU27	14.0	12.9	12.9	12.7	12.6	12.5	12.7	13.1	12.9
Total tax revenues									
EE	36.3	31.0	30.8	30.7	30.8	31.5	31.8	35.8	34.3
LV	33.2	29.9	28.8	29.4	30.8	30.8	29.7	27.0	27.5
LT	27.5	30.0	28.0	28.7	29.6	29.9	30.4	29.7	27.4
EU27	40.8	41.6	40.1	40.2	40.7	40.6	40.4	39.7	39.6

Source: Eurostat.

The environmental taxes (mostly the excise tax on gasoline and diesel) are rather regressive with respect to incomes, but progressive with respect to consumption expenditures. Still, increasing the excise on electricity and central heating is rather regressive (tax burden would increase more on people with lower income). Concerning property taxes, land tax is rather regressive, but that decreased during 2000-2007, probably related to the real estate boom. Yet another possible impact may come from the taxation of cars that is also missing at the moment.

Kakwani's measure of tax progressivity shows that social tax and income tax are progressive in respect to the incomes. The reduction of the income tax rates during 2000-2007 from 26% in 2000 to 22% in 2007 were more for the benefit of people in higher income deciles and the increase of the tax free minimum income (and also the total effect) those in the middle deciles, but in absolute terms the gains were highest for those in the upper deciles, thus it has increased inequality of net incomes. What has reduced the inequality is the additional tax free allowance by the number of children in household (the gains in relative terms the highest for the middle deciles). Also the income tax deductions (household loan and study loan interest payments, educational expenditures, payments to the 3rd pillar of pension) are more for the benefits of people at higher deciles.

Leventi *et al.* (2010) studied the distributional effects of austerity measures (tax increases and benefit cuts) on four countries (Estonia, UK, Greece, Spain) hit hard by the crises using the EU micro-simulation model EUROMOD and SILC data. The results showed that in Estonia inequality increased only slightly. Similarly to Greece and Spain, people in the highest income groups carried most of the effect of fiscal consolidation, e.g. 69% was to the upper half of the income distribution, still the contribution of lower income quintiles was not negligible. Income losses were higher in absolute terms for higher income groups and in relative terms for lower income groups. However, these results in case of Estonia were quite a lot driven by classifying the suspension of contributions to the 2nd pension pillar (between 1.06.2009 and 31.12.2010) as tax decrease that affected especially the people in the higher income groups (Vörk 2012).

In Latvia during 2009-2010 several changes were implemented to the taxation, like first the reduction and then increase of personal income tax, decrease of minimum tax free income, increase of the tax rate to self-employed increased, extending the personal income tax base to capital income, introduction of progressive property tax etc. The total effect of these changes is hard to judge, nevertheless, some of the changes seem to have influenced the highest income group more than other groups. If not reducing inequality, the changes in taxation managed not to increase inequality in times of crisis and overall increasing taxes (in fact according to Eurostat GINI data, the overall income inequality in Latvia in 2011 decreased). Micro simulations performed by Žabko (2007) suggest that increasing the non-taxable minimum as well as the tax relief for dependants has been especially beneficial for the lowest income groups, except for the very poorest, since their income is already taxed very little. On the other hand, the mandatory state social contributions (social security payments) employee share was increased from 9% to 11%, raising the total rate from 33.09% to 35.09% - a change that motivates people to leave the labour market (Žabko 2007). The introduction of a progressive income tax rate would be seen very favourably by the majority of the population, however, it would also make the tax system more complicated and require additional resources for

administering the system, thus, researchers argue that it is not clear if such a system would be useful (Žabko 2007). Other measures such as increasing the tax free minimum income or tax relief for dependent persons would have a larger positive effect for low-wage workers.

Vörk *et al.* (2007) study showed for 2004 that the tax wedge labour costs (combined effect of labour taxes and benefits) was very high in all post-socialist new member states (including the Baltic States); they also showed with econometric analysis that tax wedge decreased labour force participation and employment rates.

5.3 Social expenditures

The social expenditure level has been relatively low in the Baltic States at relatively lower levels, reflecting also the smaller total government expenditures as the percentage of GDP (see Table 5.3). The low social protection expenditures are reflected for example in the relatively low unemployment insurance replacement rates, lower share of pensions as a percentage of GDP etc. In 1990s the term “social dumping” was used to describe the lower social protection level in order to promote economic growth (Masso and Paas (2007)).

Table 5.3. Social protection and general government expenditures as the share of GDP, 1997-2009

Country	1997	1999	2002	2003	2005	2006	2007	2008	2009
Total government budget as the share of GDP									
EE	37.4	40.1	35.8	34.8	33.6	33.6	34.0	39.5	45.2
LV	36.3	41.9	36.0	34.9	35.8	38.3	36.0	39.1	44.4
LT	49.6	39.9	34.6	33.0	33.2	33.5	34.6	37.2	43.8
EU15	48.4	46.9	46.7	47.4	47.1	46.6	46.0	47.6	51.6
EU27	48.2	46.8	46.6	47.2	46.8	46.3	45.6	47.1	51.1
Social protection expenditure as the share of GDP									
EE		15.4	12.7	12.5	12.6	12.1	12.1	14.9	19.2
LV	15.3	17.2	14.3	14.0	12.8	12.7	11.3	12.7	16.8
LT	13.7	0.0	14.0	13.5	13.2	13.4	14.4	16.1	21.3
EU15	27.4	26.9	27.2	27.6	27.6	27.2	26.4	27.5	30.3
EU27					27.1	26.6	25.7	26.7	29.5

Source: Eurostat.

Masso and Paas (2007) argue that the social protection systems of the Baltic States do not mimic exactly any of the four systems in Europe (Anglo-Saxon, Central European or conservative corporatist, Scandinavian or social democratic regime, Southern European regime), have been quite

dynamic and it is also not possible to outline a distinct Baltic social protection system either. While in the beginning of the transition rather the Baltic States rather followed the Central European system, later the elements of the liberal system were introduced (like the 3-pillar pension systems), but later in the 2000s the elements of the Central European social protection system became stronger again due to the introduction of the unemployment insurance system. The data across EU countries clearly indicate that there is negative correlation between either the share social expenditures or tax revenues as % of GDP and income inequality, and the Baltic States are contributing to this relationship with their low levels of social expenditure and relatively high levels of inequality (Trumm 2010).

The Baltic States pension systems have some differences from the systems of other European countries. During 1998-2004 following the recommendations of World Bank the Baltic States adopted the three pillar pension systems using the Latin-American approach, i.e. a combination of the pay-as-you go (1st pillar) and funded (mandatory 2nd and voluntary 3rd pillar) systems, whereby workers themselves choose their investment manager (Masso and Paas 2007). The reasons for reform were the unsatisfactory pension systems inherited from the Soviet time with low retirement ages (that are increased gradually), aging population and the decrease in employment levels during the economic transition.

Table 5.4 shows that pensions constitute relative to EU27 or EU15 a smaller and in recent years decreasing share of GDP, still during the years of recent crises their share has increased significantly, also because alongside the declining GDP, wage cuts and austerity measures reduction of pensions were avoided (in Estonia in 2009 the rise was limited to 5% instead of the planned 14%, OECD 2011). On the other hand in Latvia in 2009 the pensions were reduced by 10% but this decision was revoked by the Constitutional Court. The pensions of working pensioners were cut by 70%; it caused about 40 thousand working pensioners leaving their jobs that improved the labour market opportunities for young people.

Thus, while the actual pensions have been mostly determined by the 1st pillar and the inequality of pensions has been relatively small so far, in the future the contribution of the 2nd and 3rd pillar will increase and along with that also the inequality of pensions will increase considerably due to the inequality of wages and resulting contributions to the 2nd pillar, peoples' different voluntary contributions to the 3rd pillar and the different returns to assets in different pension funds. If one compares the average level of wages and pensions, one can conclude that their proportional differences fit very well the changes in inequality in Latvia (Bičevska 2012). In 2005 the average wage

was 3 times higher than a pension, but in 2007-2008 the difference increased to 3.7%, as a result of the crisis the ratio decreased to 2.7 in January 2009. So far the pension inequality is not high, e.g. in Latvia the average level of 20% of highest pensions is about 2 times higher as the average level of the lowest 20% of pensions. Since 2008 in the age group of up to 64 years the income differences have remained almost unchanged, but inequality has decreased in the group aged 65 and over (Bičevska 2012). Both in Estonia and Latvia the contributions from social taxes to mandatory pension funds (2nd pillar) were reduced in 2009 making many people doubt whether it will be possible to secure any pensions from that amount of money in the future, still these are restored in the course of recovery.

Table 5.4. Pensions as per cent of GDP, 1997-2010

Country	1997	1999	2002	2003	2005	2006	2007	2008	2009
Old age pensions									
EE		6.30	4.31	4.27	4.13	4.12	3.96	4.78	6.01
LV	8.00	9.19	7.07	6.40	5.38	5.23	4.54	5.15	7.16
LT	5.52		5.51	5.28	5.00	4.79	4.99	5.67	7.36
EU15	8.91	8.89	8.77	8.85	8.95	8.88	8.55	9.04	9.81
EU27					8.78	8.69	8.36	8.81	9.59
Anticipated old age pensions									
EE		0.04	0.90	0.94	1.03	1.04	1.05	1.29	1.76
LV	0.16	0.22	0.21	0.20	0.16	0.14	0.13	0.13	0.16
LT	0.09		0.17	0.17	0.18	0.18	0.17	0.18	0.22
EU15	0.43	0.43	0.42	0.44	0.41	0.37	0.35	0.36	0.39
EU27					0.45	0.42	0.40	0.42	0.46
Disability pensions									
EE		0.98	0.54	0.58	0.64	0.67	0.68	0.87	1.17
LV	0.94	0.97	0.73	0.67	0.63	0.59	0.48	0.58	0.89
LT	0.59		0.78	0.83	0.89	0.92	0.97	1.09	1.45
EU15	1.10	1.03	1.01	1.01	0.97	0.93	0.85	1.01	1.06
EU27					0.98	0.94	0.86	1.01	1.06
Total									
EE		7.59	5.88	5.88	5.89	5.91	5.77	7.02	9.06
LV	9.48	10.79	8.31	7.54	6.38	6.16	5.31	6.03	8.44
LT	6.59		6.93	6.73	6.49	6.30	6.59	7.39	9.59
EU15	12.66	12.44	12.28	12.37	12.31	12.13	11.58	12.28	13.27
EU27					12.15	11.96	11.41	12.05	13.07

Note. The numbers include both means tested and non means tested pensions.

Source: Eurostat

In the Baltic States the unemployment benefit systems introduced in the beginning of 1990s were classified as unemployment assistance; these were replaced with unemployment insurance system in Latvia and Lithuania later on (in 1997 and 1996, respectively), while in Estonia both systems co-exist since 2002 (Masso and Paas 2007). Compared to other EU countries, in the Baltic States active labour market policies (hereinafter ALPM) have been modestly funded, e.g. in 2004 the share of ALPM expenditures as a share of the GDP was 0.23% in Estonia, 0.46% of GDP in Latvia and 0.22% of GDP in Lithuania (Masso and Paas 2007). The passive measures have accounted for most of the expenditures on labour market policies, e.g. in 2010 from 56% in Latvia to 61% in Lithuania and 79% in Estonia. During the latest crisis, expenditures on the labour market policies increased substantially, both in absolute terms and as the percentage of GDP: in Estonia from 0.2% to 1% and in Lithuania 0.4% to 0.9%¹⁹ (Masso and Krillo 2011). Still, even after that increase the expenditures are below the EU level. The EU structural funds have helped to finance the ALPM. The low ALPM expenditures have been reflected also in the low percentage of unemployed people receiving the training (e.g. in 2004 10% in Estonia, 24% in Latvia, 38% in Lithuania but 48% in Germany, Masso and Paas 2007).

Low unemployment benefits and public employment services have also caused for most of the period the registered unemployment rates to be below the ILO unemployment rates²⁰. Leetmaa et al. (2003) argued that even the few existing programmes in Estonia were not often appropriately targeted to those needing these the most. The later study by Vörk *et al.* (2012) showed that although during the recent crises the expenditures on ALPM increased a lot, the accessibility to these measures actually declined due to the fast increase of unemployment, e.g. in terms of time needed before accession to ALPM. Among different measures training has been the most important one in terms of expenditures share and participants, but in Estonia during the crises job subsidies also increased considerably (in 2010 29% of participants, Masso and Espenberg 2011). The changes in the structure of measures since 2010 (increasing share of wage subsidies, creation of work clubs, decreasing share of training) can be considered in the light of international experience positive (Vörk *et al.* 2012). The study by Lauringson (2012) on the generosity of unemployment benefits in Estonia using the registry data from Estonian Unemployment Insurance Fund and Estonian Tax and Customs Board showed that unemployment benefits have reduced the flows of unemployed people into employment, still the effect has been slightly lower during the time of the recent crises. From the

¹⁹ Sources: Estonia – Unemployment Insurance Fund; Lithuania – Lithuanian Labour Exchange.

²⁰ In Latvia youth in particular often do not register. The other reasons for not registering include the lack of information about the services and opportunities offered by public employment services, and the conditions that apply. Also, quite a few of those who are registered in public employment services, actually work, just unofficially, thus receiving both salary and benefits from public employment services. In general, the registered unemployment data is not very reliable. Similarly for Estonia, in the past turning to the public employment service has not been popular either among the unemployed, job seekers or the employers (Vörk *et al.* 2010).

positive side, the unemployment benefits had a positive impact on the post-unemployment wages and duration of employment spell. Over the time, there have been some changes in the laws extending the number of people entitled to unemployment benefits (like in Latvia in 1998 changes were introduced that allowed also people who did not have a certificate of official language skills or education to receive unemployment benefits, Vipule 2000) that might have left a mark on the changes in inequality.

Table 5.5. Labour market policies, 1995-2010

Expenditure type / Country	1995	1999	2003	2005	2006	2007	2008	2009	2010
LMP services (cat. 1, % of GDP)									
EE	0.032	0.02	0.03	0.02	0.02	0.02	0.03	0.09	0.09
LV			0.04	0.06	0.07	0.06	0.05	0.04	0.04
LT	0.068	0.08	0.04	0.07	0.09	0.09	0.08	0.10	0.08
EU27				0.22	0.20	0.19	0.19	0.24	
Active spending (cat. 2-7, % of GDP)									
EE	0.10	0.08	0.05	0.05	0.05	0.03	0.04	0.15	0.14
LV	-	0.19	0.08	0.16	0.19	0.11	0.08	0.27	0.51
LT	0.16	0.21	0.15	0.15	0.18	0.23	0.14	0.20	0.23
EU27				0.51	0.50	0.46	0.47	0.54	
Passive spending (cat. 8-9, % of GDP)									
EE	40.5%	0.16	0.19	0.12	0.08	0.10	0.21	1.38	0.86
LV	-	0.86	0.37	0.31	0.29	0.29	0.35	1.03	0.69
LT	46.4%	0.14	0.16	0.12	0.12	0.11	0.15	0.61	0.48
EU27				1.27	1.13	0.95	0.96	1.40	1.36
Passive spending (% of total spending)									
EE	0.07	65.3	71.6	63.6	52.6	65.6	75.9	85.4	79.0
LV	-	82.2	75.2	58.3	53.2	62.5	72.4	76.5	55.6
LT	0.14	40.0	44.6	36.0	31.9	26.3	41.2	67.2	60.9
EU27				63.5	61.5	59.2	59.3	64.3	
Total spending (% of GDP)									
EE	0.17	0.24	0.264	0.26	0.19	0.15	0.15	0.28	1.62
LV	-	1.05	0.491	0.49	0.54	0.55	0.46	0.48	1.34
LT	0.29	0.36	0.35	0.35	0.34	0.39	0.43	0.37	0.91
EU27					2.00	1.83	1.61	1.62	2.17

Source: Eurostat, Masso and Paas (2007) based on data from national public employment service agencies, own calculations.

The introduction of austerity measures has led to further discussions of the sustainability of the public finances, incl. that of the social insurance system; the latter was analysed in recent report by Praxis (2011). The study showed a forecasted deficit in the pension system in the amount 1% of GDP being the highest in the coming years due to the restoration of current payments and the compensation for cancelled payments to the 2nd pillar of the pension system during 2014-2017. Concerning unemployment insurance, while its current funding is sufficient to finance the ALPM costs at the current level, these are not adequate to increase ALPM costs to EU average level. In health insurance the costs and revenues are balanced till 2030, but after that the deficit will grow to -1% of GDP by 2060 due to population ageing (Praxis 2011); as a possible solution it is suggested that the payment on health insurance tax for non-working insured persons in the amount of minimum wage would be sufficient. In sum the sustainability of the social insurance systems depends on the level on structure of the taxes and their sensitivity to population changes and labour market developments.

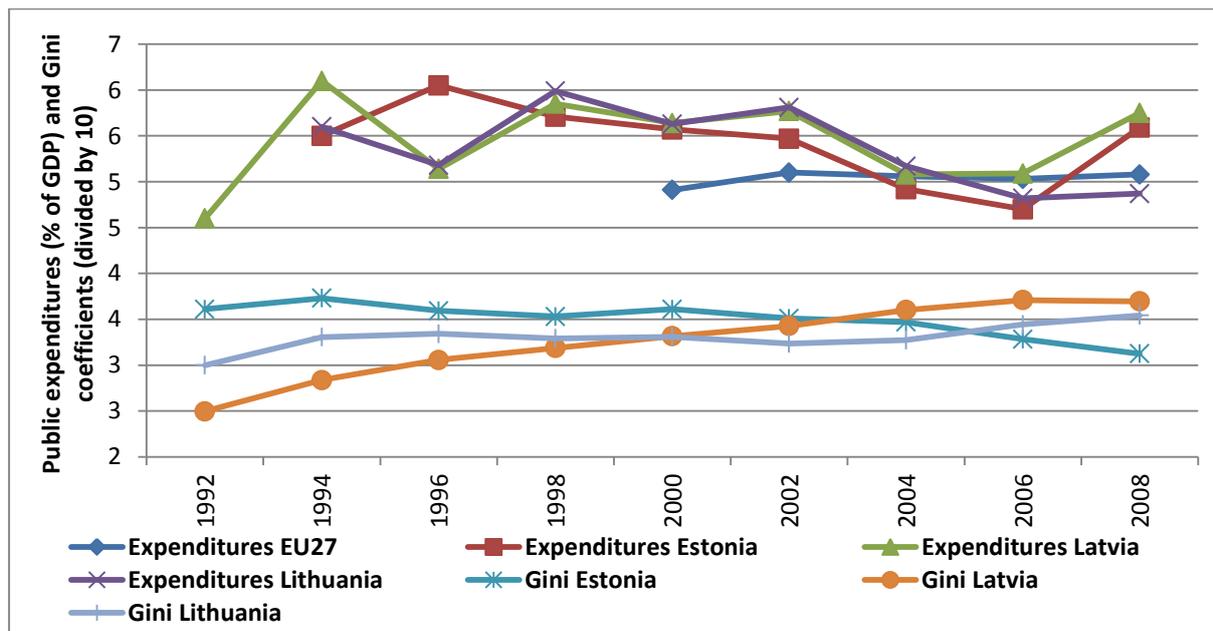
5.4 Education

In Figure 5.2 total public expenditure on education as percentage of GDP in all three Baltic countries is presented. The figure shows some relatively small variations across three Baltic countries. Highest level of expenditure comparing almost 20 years period turns out to be in Latvia, reaching in the end of 1990s and second part of 2000s even over the average level of EU countries. On the other hand, expenditure in education seems in other two Baltic countries – in Estonia and Lithuania – to be more similar to each other, remaining until end of 2000s below European average expenditure level. However, similarly in all three Baltic countries, there could be seen rapid growth in educational expenditure between years 2006-2009. This period could be characterised by economic changes – economic decline after rapid economic growth, still expenditures in education being nationally valued also in the context of cuts in other fields of expenditures.

According to the data about income inequality presented on the Figure 5.2 it is not uniquely clear, how the investments in education may support to reduce the income inequality. The effect is foremost non-existent in the case of Estonia where also in the periods when the investments in the education were in some degree higher, the relatively high income inequality was still present ($r=.327$). One of the explanations may be that both of these social fields – education and inequality – are in character rather inert and need more systematic political and economic intervention; occasional “project-based” ideas about possible changes, varying significantly from the particular

government membership, may not be in longer perspective sustainable. In the case of Latvia and Lithuania the correlations between expenditure in education and income inequality is moderate and negative (Latvia $r=-.205$, Lithuania $r=-.365$), indicating that although modestly, the systematic investments in education, next to other possible influential factors, may play some role in reducing inequality in the society.

Figure 5.2. Total public expenditure on education as a percentage of GDP and income inequality, 1992-2009



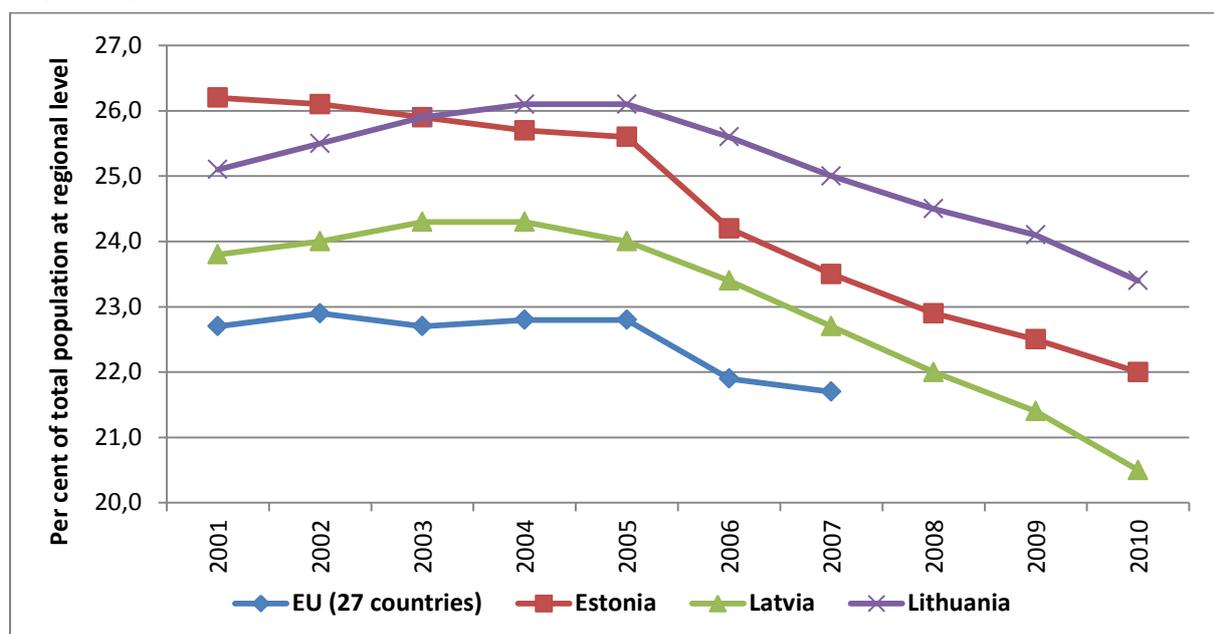
Sources: Eurostat, SWID database.

Other surveys (see e.g. Education... 2010) have indicated that cut expenditure on education at almost all levels due to the financial crisis was foremost characteristic to majority of CEE countries. Although the cuts in the education sector were in Latvia the highest – state budget for teachers’ salaries in primary and secondary education was reduced by 50.9 per cent (ibid), the reduced level of salaries have remained also currently, after some stabilisations in the financial situation, at least in Estonia. Other studies have indicated (see Åslund and Dombrovskis 2011) that besides financial cuts in the educational sector also several structural changes were implemented, like reduction of the number of schools (from 992 in 2007-2008 to 877 in 2009-2010, that is 115 schools or 12 per cent of all schools were closed) and the reduction total number of school staff (from 2008 to 2009 by 4000 people or 14 per cent). Due to the drastic structural changes, teachers received a large salary hike in early 2010 (when on the same time, the salary of teachers in Estonia has not yet achieved the same level as teachers had before the beginning of the financial crisis). The drastic structural changes in Latvia (Åslund and Dombrovskis 2011) were justified with the population decline in the amount of 15

per cent since independence and with the low birth rates, e.g. too many schools and teachers for decreased number of pupils (one teacher for every seven students, compared with the European average of one teacher per 12 students).

Previous studies have indicated (see e.g. Heidmets *et al.* 2011) that in the context of economic depression, in all Baltic countries structural reforms in education are debated, including optimization of the network of educational institutions, avoidance of the duplication of study programmes, and improvement in the quality of study programmes. However, there are difficulties for taking practical steps to optimize the whole system due to the inherently inert character of educational system, the complexity of target groups (both pupils, teachers, school managers), and need to take into consideration the public's cultural sensitivity to educational change processes. However, when the structural changes in Estonia are until now still to a great extent in the stage of public discussion, then in Latvia the first concrete steps in the form of decrease of numbers of schools and teachers have already done.

Figure 5.3. Pupils and students in all levels of education (as % of total population at regional level), 2001-2010

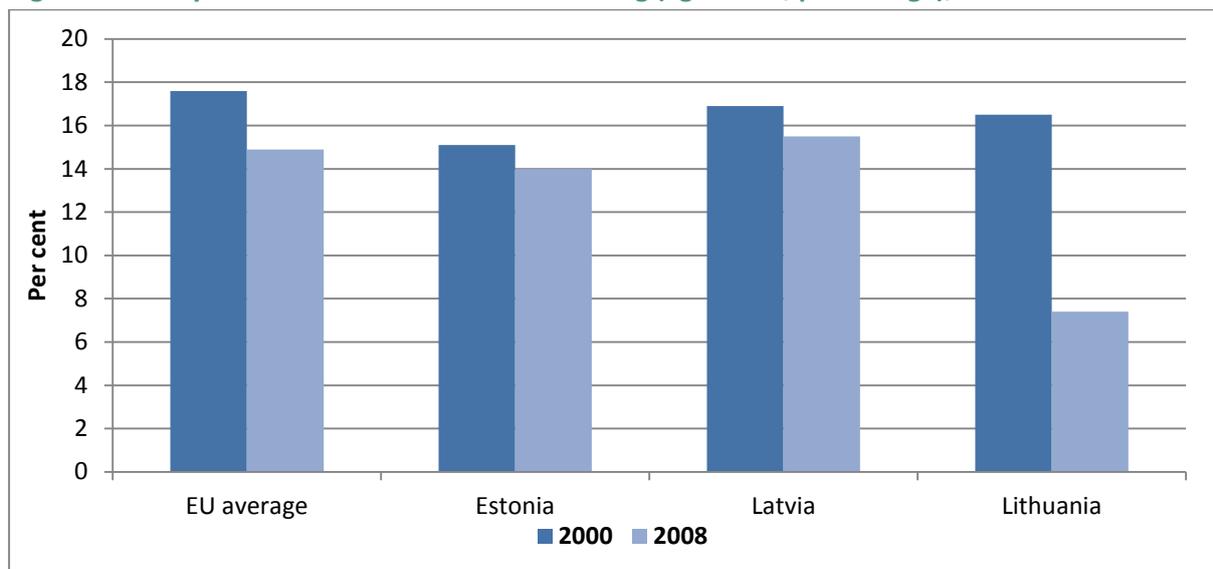


Source: Eurostat.

Previous studies have indicated (Heidmets *et al.* 2011) that in Estonia, the highest educational inequality is inherent to oldest age group, and smallest in among 35-39 year olds. However, from the beginning of 1990s there is decrease of educational inequality among older age groups, but among the younger generations the changes are contrary. Comparison with the other countries (Heidmets *et al.* 2011) have shown that when in the beginning of the 60 the educational inequality was in

Estonia quite high, then in the beginning of the 1990s the level of inequality was comparable with other transition and European countries. Such tendencies may indicate the improving access to education. Figure 5.3 indicates that there is slight decrease of proportion of pupils and students in all levels of education in all three Baltic countries, quite similarly to other European countries. The decreasing total number of pupils may be explained by the decline of births (in Latvia and in Estonia especially in Russian-medium schools), although in the beginning of 1990s even the proportional number of pupils was increasing.

Figure 5.4. Early leavers from education and training (age 18-24, percentage), 2000 and 2008



Source: Progress towards Lisbon objectives in education and training. Indicators and Benchmarks.

According to previous studies (Heidmets *et al.* 2011) the probability to reach second stage of education is relatively high in all three Baltic States (2008 in Estonia 82.2, in Latvia 80% and in Lithuania 89.1). The accessibility to education is still limited to those groups of youngsters dropping out from schools. Figure 5.4 indicates that in the Baltic countries the proportion of early leavers from education and training is comparable to the European average (although still above the European benchmark of 10%). Still previous studies indicate (Heidmets *et al.* 2011) that compared to other Baltic Sea countries like Finland, Sweden and even to other transition countries Poland; the proportion of early leavers is relatively high. Only Lithuania has made success during last years in this field compared to other two Baltic countries.

On the other hand the accessibility to higher educational levels has been increasing in all Baltic States during last two decades. The previous studies have revealed (Heidmets *et al.* 2011: 102) that the emergence of private higher education institutions and the admission of fee-paying students by public universities can be seen as source of this growth, as well as the high birth rate during the late

1980s. Governments have not been able to cover the study expenses of the rapidly growing student body and, as a result, there are now two categories of students in both public and private higher education institutions – those covering fully the study fees themselves and those whose expenses are covered by the state. Still, the rapid arising of study places for a fee has decreased the accessibility to higher education and changed the accessibility to higher education dependent on the income of the students' parents or students themselves (enforcing the students to work with relatively high work load next to full-time studies). When in the periods of economic development and growth in 2000-2007 (see Trumm 2011) studying for a fee was accessible to the majority of students due to the study loan system, in the period of financial crisis since 2008 the accessibility to paid higher education has decreased (e.g. parents' or students' unemployment, unwillingness and difficulties in taking the study loan, etc.). In the coming years when smaller birth cohorts enter higher education and due to the higher education reform for example in Estonia (aiming to assure free of charge higher education) the described situation will change. Still, the sustainability of higher education in some fields (e.g. social sciences) may turn out to be questionable in the situation when the number of secondary school graduates drop almost 50%, but the financial substitute to the study-fees is not yet available.

However the phenomenon where the poverty itself may produce poverty is inherent not only to the higher education, but also to the lower educational levels. According to Trumm (2010) since poverty does not concern just one single characteristic (low income), but combines various domains (education, health, living conditions), resulting in accumulating deprivation and financial and social problems, and as such having its inner logic of functioning and being characterizable by difficulties to exit from the everyday systems (e.g. related to resources available in the family) producing poverty. In Baltic countries like in other post-soviet transition countries, the poverty may result from the insufficient means for example in the education (e.g. lower accessibility for participating in hobby groups for children originating from the families having less financial resources) in such way the lack of individual financial opportunities (e.g. due to the lower education) may play an essential role in (re)producing the poverty (via hindering the access to education).

5.5 Conclusions

The inequality levels in the Baltic States are related to the institutional set-up of the labour markets, social protection systems and the tax systems. The impact of trade unions on wage changes and wage formation has been modest due to weakness of unions, rather low density of trade unions and low coverage of trade unions; that may explain some of the wage inequalities observed in the Baltic

labour markets. In that light national minimum wages could have a larger role in the Baltic States, but their importance has been more modest, as one might infer from the percentage of workers on the minimum wage due to enforcement problems and widespread unreported income. The overall share of taxation and public spending in GDP has been in the Baltic States relatively small. In our view tax system has contributed to inequality due to relatively higher share of indirect taxes, relatively low taxes on capital and relatively high taxes on labour. The fiscal austerity measures introduced during the Great Recession did not contribute much to rising inequality. The extremely high macroeconomic volatility across the business cycles seems to dominate effects due to policy changes. The overall levels of social expenditures have been in the Baltic States at relatively lower levels; that is reflected in the relatively low unemployment insurance replacement rates, lower share of pensions in GDP and limited use of active labour market policies. The expenditures on active policies increased a lot during the crises years, still due to the rapid growth in unemployment their accessibility sometimes even decreased. The social protection systems of the Baltic States do not mimic exactly any of the four European systems, though containing elements of liberal and Central European system, and have been quite dynamic. Raising public educational expenditures may have some role in reducing inequality and its intergenerational transmission in the society since the rapid arising of study places for a fee has decreased the accessibility to higher education, especially during the recent crises.

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ILO LABORSTA

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Appendixes

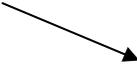
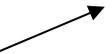
Appendix 2.1. The share of population by the highest level of education attained by gender in the Baltic States, age group 15-64, % of corresponding age population, 2000-2011

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Males: lower secondary												
EU27	35.7	36.0	35.4	34.4	33.6	33.1	32.8	32.2	31.7	31.1	30.5	29.9
EE	23.9	23.1	23.7	23.0	23.4	23.4	24.8	23.7	23.4	22.6	21.9	20.9
LV	26.7	31.1	29.4	29.1	27.6	27.9	28.4	27.5	26.5	25.2	23.4	23.8
LT	24.6	25.6	24.9	24.6	23.9	22.8	22.6	21.7	20.4	20.0	18.6	17.3
Females: lower secondary												
EU27	39.8	39.7	38.8	37.5	36.2	35.2	34.4	33.6	32.7	32.0	31.1	30.2
EE	18.3	17.8	18.9	18.5	17.7	17.6	17.6	17.2	17.9	16.4	15.1	15.1
LV	21.8	24.0	21.6	21.8	20.7	20.7	19.9	19.8	19.0	17.7	16.0	15.6
LT	21.8	22.0	21.5	20.1	19.9	19.1	18.2	17.6	16.6	16.0	15.2	14.1
Males: upper secondary												
EU27	46.5	46.4	46.9	47.3	47.2	47.4	47.5	47.7	47.8	47.7	47.8	47.7
EE	57.9	57.7	57.1	57.6	56.7	54.6	53.8	55.4	55.5	56.0	56.5	56.0
LV	59.9	56.4	56.8	58.5	59.1	58.7	58.2	57.7	57.9	59.2	60.0	59.3
LT	44.9	58.6	59.4	58.8	57.6	58.4	58.8	58.1	58.8	59.3	60.1	60.3
Females: upper secondary												
EU27	43.7	43.7	44.1	44.6	44.8	45.1	45.2	45.3	45.3	45.1	45.1	45.1
EE	52.2	51.8	50.8	51.0	51.2	50.0	49.9	49.6	47.5	46.0	47.6	46.5
LV	61.5	58.3	60.1	60.7	59.4	58.6	58.6	57.6	55.0	54.9	55.9	54.4
LT	38.3	55.7	56.4	57.1	56.4	55.8	55.9	54.6	53.8	54.0	52.4	52.2
Males: tertiary												
EU27	17.8	17.6	17.7	18.3	19.1	19.5	19.7	20.1	20.5	21.1	21.7	22.4
EE	18.2	19.2	19.2	19.4	19.9	22.0	21.4	20.8	21.1	21.4	21.5	23.1
LV	13.4	12.5	13.9	12.4	13.3	13.3	13.4	14.8	15.7	15.6	16.6	17.0
LT	30.5	15.7	15.7	16.6	18.5	18.7	18.6	20.2	20.8	20.7	21.3	22.5
Females: tertiary												
EU27	16.5	16.6	17.1	17.9	19.1	19.7	20.4	21.1	21.9	22.9	23.8	24.8
EE	29.5	30.3	30.3	30.5	31.0	32.4	32.6	33.2	34.5	37.6	37.3	38.4
LV	16.7	17.7	18.3	17.6	19.8	20.7	21.5	22.6	26.0	27.4	28.1	29.9
LT	39.8	22.3	22.0	22.8	23.7	25.2	25.8	27.8	29.6	30.0	32.4	33.7

Source: Eurostat.

Appendix 2.2. Log table chapter 2

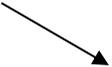
Gini coefficient

	1989-1994	1995-1999	2000-2007	2008-2010
Estonia				
Latvia				
Lithuania				

Income share held by highest 10%

	1989-1994	1995-1999	2000-2007	2008-2010
Estonia			NA	NA
Latvia				NA
Lithuania				NA

Income share held by lowest 10%

	1989-1994	1995-1999	2000-2007	2008-2010
Estonia			NA	NA
Latvia				NA
Lithuania				NA

Appendix 3.1. People at risk of poverty or social exclusion by sex*, age groups and educational level*

	2005	2006	2007	2008	2009	2010
Males						
EE	24.3	20.0	19.4	18.9	21.1	21.5
LV	42.9	38.7	34.1	31.0	35.9	37.6
LT	38.9	33.9	26.3	25.3	27.3	32.9
Females						
EE	27.3	23.7	24.2	24.3	25.5	22.0
LV	48.2	43.6	37.7	36.2	38.7	38.5
LT	42.9	37.7	30.9	29.7	31.4	33.8
Less than 18 years						
EE	28.4	24.1	20.1	19.4	24.5	24.0
LV	44.3	42.7	33.9	33.2	38.0	42.0
LT	42.5	37.2	29.9	29.4	31.0	34.3
From 18 to 64 years						
EE	24.2	19.8	19.1	17.5	19.9	21.8
LV	43.6	38.5	33.1	28.1	32.8	37.0
LT	39.3	34.2	25.8	24.5	27.5	34.0
65 years or over						
EE	29.2	27.8	35.4	40.9	35.6	19.0
LV	55.6	51.3	50.3	58.1	55.5	37.7
LT	46.1	41.3	39.1	38.1	35.8	30.0
Pre-primary, primary and lower secondary education (levels 0-2)						
EE	39.2	33.3	38.7	40.5	39.5	33.2
LV	63.7	62.0	57.2	52.3	58.5	53.1
LT	52.9	50.5	46.0	45.5	48.2	44.4
Upper secondary and post-secondary non-tertiary education (levels 3 and 4)						
EE	24.7	21.5	21.9	22.1	24.2	23.7
LV	45.2	39.9	33.7	31.4	35.7	38.2
LT	42.5	36.2	28.1	26.4	28.4	36.1
First and second stage of tertiary education (levels 5 and 6)						
EE	14.1	12.0	11.6	10.1	10.4	9.6
LV	22.7	18.8	17.1	18.0	17.0	16.8
LT	19.4	15.9	10.5	11.3	11.6	17.2

Note: * - 18 years and over.

Source: Eurostat (EU SILC).

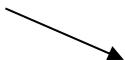
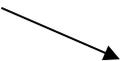
Appendix 3.2. People living in households with very low work intensity by sex, age groups and educational attainment

	2005	2006	2007	2008	2009	2010
Males						
EE	9.5	7.7	6.6	5.9	6.4	9.6
LV	8.2	7.0	6.1	5.5	7.2	13.4
LT	9.3	8.3	6.5	5.1	7.3	9.6
Females						
EE	9.3	6.4	5.8	4.7	4.7	8.2
LV	8.0	7.0	6.0	4.8	6.2	11.0
LT	9.7	8.2	6.3	5.0	6.6	8.7
Less than 18 years						
EE	9.7	6.5	4.5	3.8	4.5	8.4
LV	7.3	6.4	5.0	4.4	5.9	12.5
LT	8.4	7.5	6.4	3.6	5.2	5.5
From 18 to 24 years						
EE	7.2	5.6	4.3	3.7	2.7	7.1
LV	4.2	4.8	2.4	2.7	4.2	9.9
LT	7.6	5.8	4.0	2.8	6.2	8.6
From 25 to 54 years						
EE	8.2	6.9	6.1	5.1	5.8	8.5
LV	8.3	6.8	6.1	5.1	6.5	11.9
LT	8.8	7.6	5.9	4.8	6.5	9.6
Pre-primary, primary and lower secondary education (levels 0-2)						
EE	18.3	14.5	14.9	13.8	13.3	18.7
LV	14.4	16.2	13.1	9.4	11.9	22.2
LT	22.4	20.5	16.9	12.2	20.6	24.1
Upper secondary and post-secondary non-tertiary education (levels 3 and 4)						
EE	9.1	7.4	6.6	5.9	6.4	10.1
LV	8.0	6.5	5.5	5.0	7.0	12.0
LT	11.1	9.5	6.4	5.7	6.7	10.5
First and second stage of tertiary education (levels 5 and 6)						
EE	5.6	3.4	2.8	1.7	1.7	3.3
LV	2.7	2.3	3.2	2.8	2.2	4.2
LT	4.5	3.5	1.9	1.5	2.1	3.4

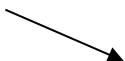
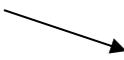
Source: Eurostat (EU SILC).

Appendix 3.3. Log tables chapter 3

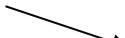
Chapter 3.5. Fertility rates

	1989-1994	1995-1999	2000-2007	2008-2010
Estonia				
Latvia	-	-		
Lithuania				

Chapter 3.5. Marriage rates

	1989-1994	1995-1999	2000-2007	2008-2010
Estonia				
Latvia				
Lithuania				

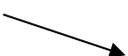
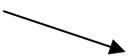
Chapter 3.5. Divorce rates

	1989-1994	1995-1999	2000-2007	2008-2010
Estonia				
Latvia				
Lithuania				

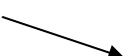
Chapter 3.6. Life expectancy

	1989-1994	1995-1999	2000-2007	2008-2010
Estonia				
Latvia	-	-		
Lithuania				

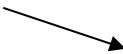
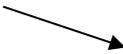
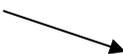
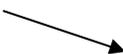
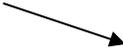
Chapter 3.7. Housing cost overburden rate

	1989-1994	1995-1999	2000-2007	2008-2010
Estonia	-	-		
Latvia	-	-		
Lithuania	-	-		

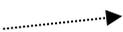
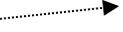
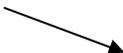
Chapter 3.8. Crime rates

	1989-1994	1995-1999	2000-2007	2008-2010
Estonia	-			
Latvia	-			
Lithuania	-			

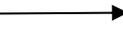
Chapter 3.10. Job-to-job mobility

	1989-1994	1995-1999	2000-2007	2008-2010
Estonia	-	-		
Latvia	-	-		
Lithuania	-	-		

Chapter 5.5. Total public expenditure on education

	1989-1994	1995-1999	2000-2007	2008-2010
Estonia	-			
Latvia	-			
Lithuania	-			

Chapter 5.5. Pupils and students in all levels of education

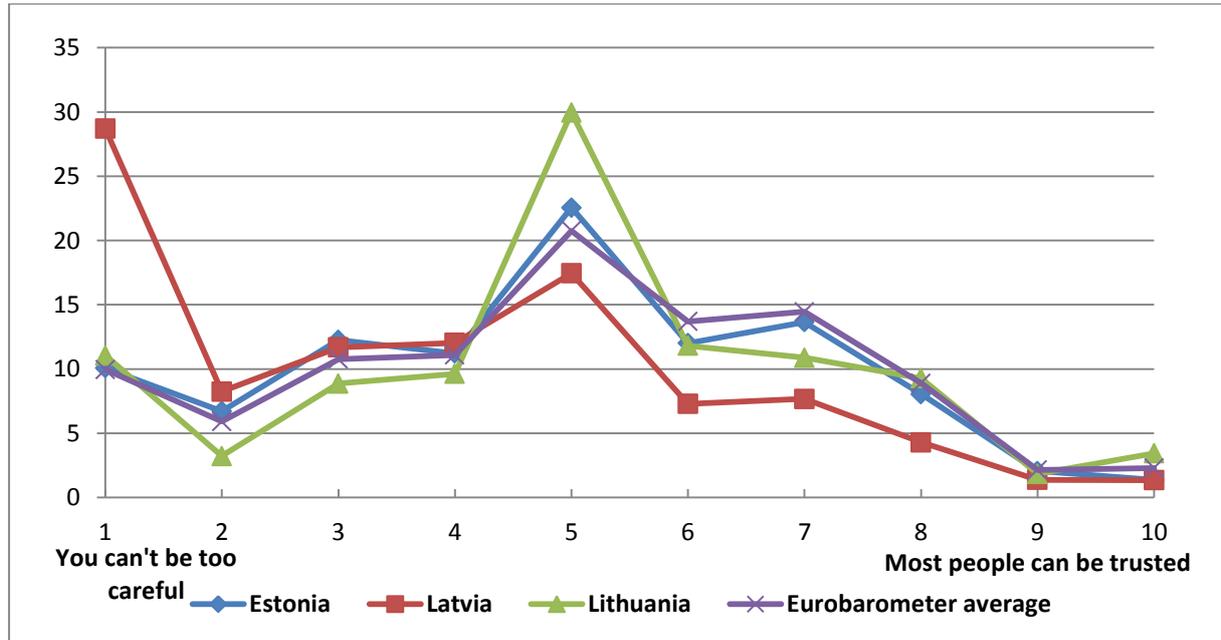
	1989-1994	1995-1999	2000-2007	2008-2010
Estonia	-	-		
Latvia	-	-		
Lithuania	-	-		

Appendix 4.1. Dynamics of trust in political institutions (%)

		Estonia				Latvia				Lithuania				All countries in EVS (average)		
		1990	1996*	1999	2008	1990	1996*	1999	2008	1990	1997*	1999	2008	1990	1999	2008
parliament	a great deal		3.2	2.9	2.4		1.7	3.6	1.7		0.6	0.4	0.3	7.1	5.2	7.0
	quite a lot		40.6	24.1	25.9		23.2	23.9	18.5		26.0	10.3	13.9	35.7	30.0	32.5
	not very much		40.9	54.1	50.3		47.1	45.2	44.5		63.3	61.6	63.4	43.7	43.6	39.6
	none at all		15.3	18.9	21.4		27.9	27.3	35.3		10.1	27.7	22.4	13.5	21.2	20.9
government	a great deal		6.6		4.5		3.0		1.8		1.1		0.3			7.0
	quite a lot		43.6		31.6		35.4		19.2		35.2		24.4			30.7
	not very much		36.1		42.4		40.0		45.9		57.7		54.5			38.1
	none at all		13.7		21.5		21.7		33.1		6.0		20.8			24.3
political parties	a great deal		0.9		1.0		0.3		1.2		0.3		0.1			3.4
	quite a lot		22.3		11.3		10.0		13.2		14.0		8.8			19.5
	not very much		45.8		47.6		46.9		42.0		72.1		63.8			45.6
	none at all		31.0		40.1		42.8		43.6		13.6		27.4			31.5
justice system	a great deal	4.7	8.1	4.6	8.3	7.0	2.8	8.0	5.9	3.2	1.6	0.1	0.8	11.1	8.8	10.8
	quite a lot	28.0	53.5	27.8	46.2	29.2	35.5	39.2	37.7	35.4	20.6	19.2	24.5	40.3	36.4	38.3
	not very much	52.8	30.1	50.6	36.0	47.5	44.1	37.8	41.8	54.3	64.6	58.3	59.6	39.0	38.6	34.6
	none at all	14.5	8.2	17.0	9.6	16.3	17.6	15.0	14.6	7.0	13.3	22.4	15.0	9.6	16.2	16.2

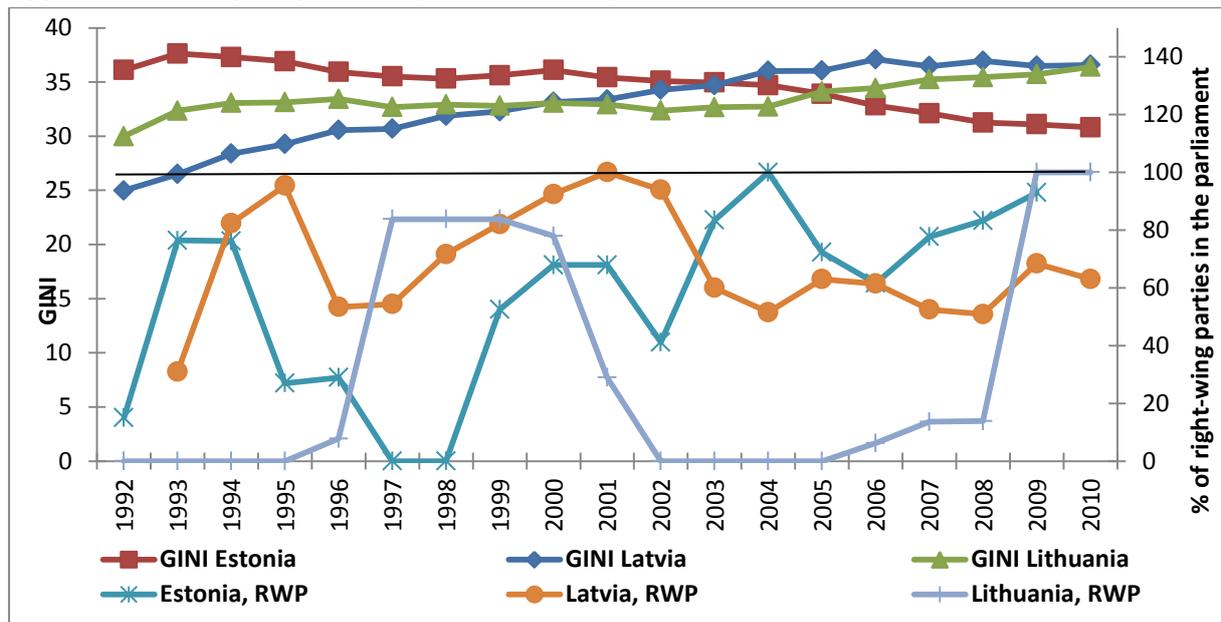
Source: European Values Study (EVS) and * - World Values Survey.

Appendix 4.2. Trust in people in general (%)

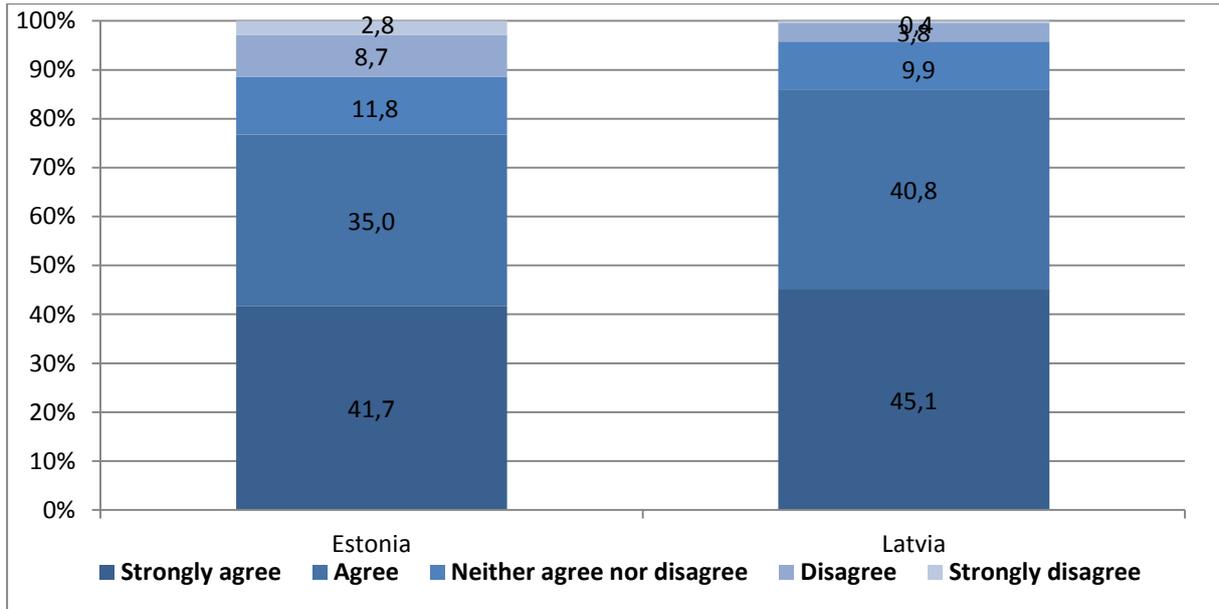


Source: Eurobarometer 08/2010.

Appendix 4.3. Inequality and the parliament composition (%)



Source: Comparative Political Data Set III, 1990-2010 (Armingeon et.al. 2011).

Appendix 4.4. It is the responsibility of the government to reduce the differences in income (%)

Source: ISS.

Appendix 4.5. Log table chapter 4

	1989-1994	1995-1999	2000-2007	2008-2010
Voter turnout				
Estonia				
Latvia				
Lithuania				
Membership in voluntary associations				
Estonia				
Latvia				
Lithuania				
Generalised trust				
Estonia				
Latvia				
Lithuania				
Confidence in political institutions (parliament)				
Estonia	no data			
Latvia	no data			
Lithuania	no data			

Note: *The data for 2008-2010 is based on comparing EVS and Eurobarometer data. **The data for 2008-2010 is based on comparing EVS and Eurobarometer data, and the wording slightly differs. ***The data for 2008-2010 is based on comparing EVS and Eurobarometer data, and the wording slightly differs.