2009 Estonian Human Development Report

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Design: **Mart Nigola**

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2009 Estonian Human Development Report

EESTI KOOSTÖÖ KOGU

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Dear Reader,

Although the bursting of the US real estate bubble on the global financial markets is seen as the main reason for the worldwide economic crisis that hit Estonia almost two years ago, the natural end of our own economic cycle also added momentum to the crisis and deepened our economic decline.

Recognising this fact allows us to conclude that Estonia has become an ordinary country that has experienced the periods of growth and decline that are an inevitable part of economic development as a country and society. Let us hope that our experiences have made us wiser, since the ongoing crisis, which is hopefully showing the first signs of abating, pointed out the places in the organisation of our common life that cracked and even crumbled under the weight the economic downturn.

This is the time to ask whether we have the sense to recognise what we could have done differently and the courage to acknowledge our shortcomings. More specifically, we should think about how we can change our behaviour in order to avoid similar difficulties in the next economic cycle.

At the time of the publication of the 2009 Human Development Report it not yet known whether Estonia will succeed in achieving the adoption of the euro at the beginning of 2011 – a strategic goal from the standpoint of the country's future economic stability.

Let us assume and hope that Estonia reaches this goal. Among other things, the introduction of the euro will also change attitudes toward Estonia – it is likely that along with money from Europe and the rest of the world, businesses and people will also find their way to this stable, innovative and open economic environment and will, perhaps, remain here permanently.

In order to achieve this, we will have to create a new type of ecosystem in Estonia that attracts talent and is invested in people and their skills. Estonia must offer people a high-quality human environment in order for the world's best brains to consider coming to Estonia among their other options.

This means that the society must be tolerant of newcomers. It also means that the country must have a fully developed infrastructure and be able to provide its people with a sense of security. Furthermore, we must offer good educational opportunities for both parents and children, high-quality medical care and other social services.

No, we do not need these things to attract newcomers. All people in Estonia, whether they live in large urban centres or farms in the woods, in Saaremaa or Saverna, are part of this ecosystem as its consumers and contributors. If we want our own people to think of Estonia as their home, we have to make it a more caring and friendly place.

Therefore, it is not by chance that this year's Human Development Report focuses on Estonia as a human environment and on some aspects of the current state of this environment. I hope that a detailed analysis of the situation will help us all comprehend the extent of the work that awaits us after the end of the crisis.

Kadriorg, 10 February 2010

Toomas Hendrik Ilves
President of the Republic

Preface

To a degree, the 2009 Estonian Human Development Report marks the end of the first decade of the 21st century. Estonia has developed at an astonishing rate since the restoration of independence, being driven primarily by international development goals related to ensuring security in terms of economic affairs and foreign policy. During the past decade, Estonia has become a member of the European Union and NATO, the Schengen Area, and the World Trade Organization. At the time of publication of the 2009 Human Development Report, Estonia is poised to join the OECD, an organisation that brings together countries committed to democracy, market economy, and human rights. Soon, a decision will also be made regarding Estonia's accession to the euro zone – an achievement that probably everyone in Estonia, from the Riigikogu and the government to the tax payer, has strived for. To quote an accurate remark made recently by the President of the Republic, "Estonia is about to be the most integrated country in Northern Europe".

Hence we have to ask ourselves – where do we go from here?

This year, the Estonian Human Development Report is devoted to analysing the quality of our society and human environment. It is this aspect of Estonia, the framework of our quality of life, which the global economic crisis has truly put to the test. History and experience demonstrate that no crisis lasts for ever. Similarly, there are no perpetual upswings. It is the beginning of a new decade and the international development goals we consider important are being achieved. Is it time perhaps to focus on our domestic objectives to allow us to ensure Estonia's sustainable development? Whether or not we embark on this road is a question of political choices and, above all, of the mentality and attitudes that prevail in society.

Some years ago, the Estonian Cooperation Assembly pointed out four areas of importance with regard to Estonia's long-term development capacity: education, the economy and workforce, public health, the population and ethnic affairs. By now, dozens of non-governmental organisations operating across Estonia have answered our call to discuss and question Estonia's long-term development priorities. As a result they have proposed various options and solutions they deemed best to the decision makers. This is developing into a rather unique form of dialogue between representative democracy and participatory democracy, combining the state, the society and the economy.

The Estonian Cooperation Assembly would like to thank all the authors, editors and the editor-in-chief of the report as well as the experts and organisations, all of whom once again contributed to the dialogue and process of finding solutions through discussion.

Peep Mühls
Chairman of the Executive Board
Estonian Cooperation Assembly

Introduction

Dear reader, You are holding a copy of the 2009 Estonian Human Development Report which provides another insight into the development trends of Estonian society based on the data collected in Estonia and on international research. This time, the focus of the report is on Estonia's human environment. In the context of this publication, the environment is approached in its broadest sense – as a combination of nature, social institutions and human relations, as both a cultural and material phenomenon, and in the sense of the environment locally as well as in Estonia as a whole.

Although some of the data used in the report is from previous years, the analysis focuses on life in Estonia today, in expectation of a recovery from the economic recession. The report centres on the environment as both a positive and negative development factor. The economic crisis has brought the stronger and weaker aspects of our current development into sharper focus. Recovery from the crisis has mainly been linked to our ability to discover new opportunities. In this report, we ask a number of questions. Which problems of human development have been aggravated by the worsening of the economic environment – the ones related to the population's wellbeing, health or education? Which aspects of human development are most affected by the environment? How does economic development impact the natural environment? Whether and how the current institutional environment in Estonia, including the labour market, education, taxation system, and administrative arrangement promote development, the search for new solutions, innovation, enterprise and creativity? Or is the institutional environment itself a flawed and in need of change?

This year's Human Development Report touches on some issues that have been missing from previous reports, such as the role of the natural environment or the regional and gender-related peculiarities of human development. The first chapter contains a prediction regarding the possible impact a potentially worsening economic environment, especially high unemployment, on Estonia's human development indicators. The chapter also considers the impact of the economic environment on one the country's most serious problems – the health and life expectancy of Estonian men. The second chapter takes a look at the relationship between human development and the natural environment from the standpoint of both health and wellbeing. The third chapter provides a closer examination of the regional differences which have become alarmingly large, considering Estonia's small size. The fourth chapter contains intriguing facts and discussions on whether the openness and dynamism of Estonia's society is actually a myth that developed as a result of the initial inebriation of success. It also suggests that this myth may not be verified by an in-depth analysis of the social mobility and career opportunities of various population strata and groups. The fifth chapter examines people's values and the cultural environment, focusing specifically on the gender-related characteristics of cultural patterns and the role of the schools and the media in young people's socialisation process. As per tradition, the last chapter of the Human Development Report is again devoted to economy. In addition to focusing on Estonia's international and local business environment, the chapter attempts to predict future trends in the global market, where China's growing economy is playing an increasingly important role.

As in previous years, the Human Development Report is a collective project undertaken with the participation of social scientists from Tallinn and Tartu. This time, in addition to the University of Tartu (Chapters 2, 5 and 6) and Tallinn University (Chapter 4), the project also involved several independent research centres: Praxis (Chapter 1), the Institute for Future Studies (Chapter 6), the Estonian Institute for Sustainable Development (Chapter 2) and Geomedia (Chapter 3). Their inclusion ensures that the publication has a broad scope and comprises diverse viewpoints, leaving room for discussions and dissenting opinions. The readers are also invited to contemplate or dispute the facts and ideas presented in this report, to look for additional information, to form their own opinions, and to seek solutions to problems.

Marju Lauristin
Editor-in-Chief, 2009 HDR

CHAPTER 1

Estonian human development indicators under the pressure of the economic crisis

1.1. Introduction

On 15 September 2008 one of the four largest investment banks in the US – Lehman Brothers – announced its bankruptcy, an event considered to be the beginning of the greatest global economic crisis in 70 years. Events in the world's economy had already started to go wrong. Estonia experienced negative economic growth for the first time in the second quarter of 2008 – by the end of the year, the decrease was 3.6% compared to 2007 (Statistics Estonia 2010). While the last human development report was being written, the mood was quite bleak, and by the time it was published, the global crisis was reaching its peak. In Estonia, the official rhetoric of "there is no crisis" had been replaced with the idea that "the crisis is the right time for making the necessary changes" and for discussions on what the government, businesses and every Estonian resident could or should do to recover from the economic crisis.

In the years from 2000 to 2007, Estonia's economic growth averaged 8.4% annually, while in 2008, the Estonian economy decreased by 3.6%, and based on initial estimates, by 14% in 2009. Such a drastic change in the economic environment affects everyone and everything. Based on data from Statistics Estonia, the unemployment rate increased in one year from 4% to 14%. How could this impact human development?

Currently, many believe that the worst is over in the economy, but this is based only on macroeconomic indicators. Unemployment continues to increase and even the promoters of current economic policies have not promised relief for the majority of those for whom coping has become very difficult. The word "crisis" was used by Hippocrates to define the turning point in an illness. It is also very probable that this economic crisis will be a turning point in the world, but we have yet to know how.

Different countries reacted differently to the greatest economic recession since the Second World War. Needs differ, experiences differ and objectives differ. Today it is too early to say which leaders have made the right decisions. However, it is possible to analyse the possible future effects on human development, societal values, and the legal, social and economic environment.

In times of crisis, most decisions are based on short-term considerations. The impact of decisions on long-term objectives depends on the ability to quickly differentiate what is important from what is unimportant. A better understanding of the possible influences of a drastic economic recession also makes for more informed and probably more intelligent decision-making.

On the one hand, this can be achieved by carefully analysing the initial changes that accompany drastic changes in the economic environment. A better idea of possible changes in the economic environment is provided by a comparison with other countries.

1.2. Global Human Development Index

Since 1990, along with the Global Human Development Report, the UNDP has published annually a comparative table of countries, i.e. the Human Development Index, which attempts to measure the most fundamental factors that impact the development of society. A more detailed description of the calculations used for the Human Development Index, and the related limitations and paradoxes, was included in the 2008 Estonian Human Development Report. In brief, the complexity of the total development of human society has been reduced to three indicators that characterise the social and economic situation in each country and are relatively easy to ascertain:

- *Life expectancy at birth*, which indicates the health and longevity of the population;
- *Educational attainment*, which is characterised, on the one hand, by adult literacy, and on the other, by the enrolment rate of students at various educational levels;
- *Standard of living*, which is measured by GDP per capita at purchasing power parity in US dollars.

Although the UNDP approach can be criticised for its lack of refinement, the appeal of the Human Development Index is the relatively good comparability of the indicators and ease of comprehension. Examining the index components separately is particularly meaningful, even if the theoretical reasoning behind the combined composite indicator seems weak (see Figure 1.2.1).

Estonia continues in 40th place in the 2009 global ranking of human development, and in Europe, we con-

tinue in 25th place. This time the UNDP has divided the countries with the highest level of human development into two groups – countries with very high (38 countries) and high (45 countries) levels of human development. In addition there are countries with medium (75) and low (24) levels of human development. Estonia's composite indicator (0.833) remains just below the magical level (0.900) for very high human development. Directly above Estonia is Bahrain as the first country among those with very high human development. The only new EU member states from Eastern Europe to be included among the countries with very high human development are Slovenia and the Czech Republic.

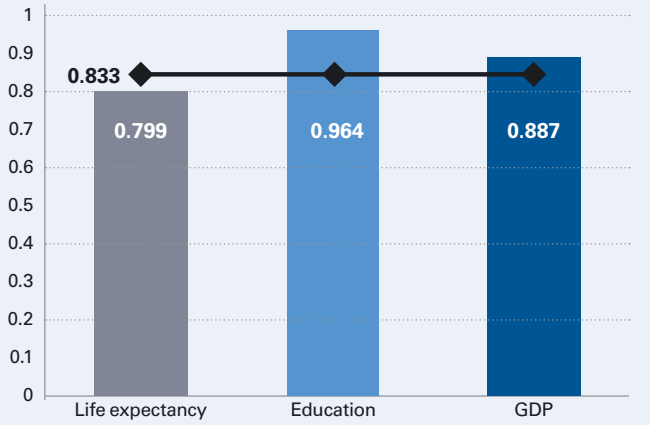
In a comparison of the separate components (see Figure 1.2.1 and Table 1.2.1) Estonia lies in 43rd place (44th the previous year) in respect to economic development (GDP of 20,361 USD per capita), in 25th place in respect to educational enrolment rate, after Kazakhstan and ahead of Uruguay (23rd the previous year) and 74th place in respect to life expectancy (72.9 years at birth) or at the same level as China (76th place the previous year).

Therefore, in summary, Estonia's general level of human development with respect to education is very high; with respect to the economy, it is narrowly shut out of the premier league; but with respect to the population's life expectancy, it is clearly a developing country. However, what are the historical trends for the separate components of human development in comparison to countries that are in positions similar to Estonia?

The general trend is moving in the same direction in all countries, while no great changes have occurred among the countries (see Figure 1.2.2). Considering the fact that the numerical value of the index is increasing in most countries, a comparison with other countries shows the relative difference in development compared to the average. Estonia is competitive in comparison to the Central and Eastern European countries, but all the "old" EU member states are classified as countries with very high human development. Estonia's extremely rapid development in 2000–2007 has allowed the gap with the "old" countries to be reduced compared to the 1995 "base", but the gap has essentially remained unchanged compared to the composite indicators from 1990.

An interesting comparison for Estonia is South Korea, which lagged behind Estonia based on all indicators in 1985. The greatest gap was in life expectancy, but by 1990, the life expectancy of South Koreans was already longer (75.9 years vs. 70.4 years). Even during the years that we made the most progress in increasing life expectancy the gap with South Korea was not reduced, because it also progressed expeditiously. With regard to the education index (0.837), South Korea lagged behind Estonia (0.932), but passed us at the beginning of the 21st century, primarily in respect to participation in formal education. In the GDP comparison, South Korea was also better off than Estonia by 1990 (10,740 USD vs. 11,265 USD), and while the difference has constantly decreased compared to the 1995 base, the relative difference is still to South Korea's advantage. This means that, in a global comparison, Estonia's extremely rapid economic growth – which will probably not be restored to the same degree – is not a rational way to improve people's quality of life if the other components, primarily health, are not actively dealt with.

Figure 1.2.1. Components of Estonia's human development



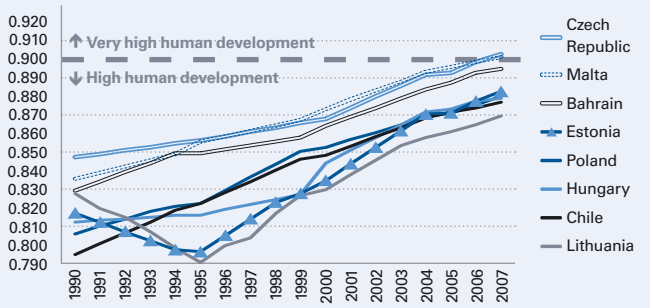
Source: Human Development Report, UNDP 2009

Table 1.2.1. 2009 Estonian Human Development Index (2007 data)

HD index	Life expectancy at birth (in years)	Adult literacy (% of those 15 or older)	Combined level of formal education (%)	GDP per capita (PPP US$)
1. Norway (0.971)	1. Japan (82.7)	1. Georgia (100.0)	1. Australia (114.2)	1. Liechtenstein (85.382)
38. Malta (0.902)	69. Bulgaria (73.1)	2. Cuba (99.8)	23. Italy (91.8)	41. Oman (22.816)
39. Bahrain (0.895)	70. Peru (73.0)	**3. Estonia (99.8)**	24. Kazakhstan (91.4)	42. Portugal (22.765)
40. Estonia (0.883)	**71. Estonia (72.9)**	4. Latvia (99.8)	**25. Estonia (91.2)**	**43. Estonia (20.361)**
41. Poland (0.880)	72. China (72.9)	5. Belarus (99.7)	26. Uruguay (90.9)	44. Bahamas (20.253)
42. Slovakia (0.880)	73. Colombia (72.7)	6. Ukraine (99.7)	27. Austria (90.5)	45. Slovakia (20.076)
182. Niger (0.340)	176. Afghanistan (43.6)	151. Mali (26.2)	177. Djibouti (25.5)	181. Democratic Republic of Congo (298)

Source: Human Development Report, UNDP 2009

Figure 1.2.2. Changes in the values of the Human Development Index in selected countries



Source: Human Development Report, UNDP 2009

Totally contrary is the comparison with Russia, which has frittered away a starting position that was equal to Estonia in 1990 (composite index 0.821 vs. 0.817) and dropped to 71st position (composite index of 0.817) by

Table 1.2.2. 2009 UNDP Human Development Index components in Estonia and the countries used for comparison

Position of the country in the ranking based on the Human Development Index (HDI)	HDI value	Life expectancy at birth (in years, position)	Adult (15-year-olds and older) literacy (%, position)	Combined formal education participation rate (%, position)	GDP per capita (PPP USD, position)	Change in GDP 2009- 2007 (%, 2007=100)
1. Norway	0.971	80.5 (12.)	99 (1.)	98.6 (8.)	53433 (5.)	102
2. Australia	0.970	81.4 (5.)	99 (1.)	114.2 (1.)	34923 (22.)	104
3. Iceland	0.969	81.7 (3.)	99 (1.)	96.0 (13.)	35742 (19.)	94
4. Canada	0.966	80.6 (11.)	99 (1.)	99.3 (7.)	35812 (18.)	99
5. Ireland	0.965	79.7 (18.)	99 (1.)	97.6 (10.)	44613 (10.)	91
7. Sweden	0.963	80.8 (8.)	99 (1.)	94.3 (18.)	36712 (16.)	98
10. Japan	0.960	82.7 (1.)	99 (1.)	86.6 (42.)	33632 (26.)	98
12. Finland	0.959	79.5 (22.)	99 (1.)	101.4 (4.)	34526 (23.)	98
13. USA	0.956	79.1 (26.)	99 (1.)	92.4 (21.)	45592 (9)	99
16. Denmark	0.955	78.2 (32.)	99 (1.)	101.3 (5.)	38130 (17.)	99
29. Slovenia	0.929	78.2 33)	99 (1.)	99.7 (20.)	26753 (33.)	102
36. Czech Republic	0.903	76.4 (39.)	99 (1.)	83.4 (46.)	24144 (37.)	101
38. Malta	0.902	79.6 (20.)	92.4 (60.)	81.3 (52.)	23080 (39.)	102
39. Bahrain	0.895	75.6 (44.)	88.8 (76.)	90.4 (28.)	29723 (30.)	109
40. Estonia	0.883	72.9 (71.)	99 (1.)	91.2 (25.)	20,361 (43.)	86
41. Poland	0.880	75.5 (45.)	99 (1.)	87.7 (39.)	15987 (53.)	110
42. Slovakia	0.880	74.6 (53.)	99 (1.)	80.5 (54.)	20,076 (45.)	105
43. Hungary	0.879	73.3 (67.)	98.9 (21.)	90.2 (30.)	18755 (46.)	98
46.Lithuania	0.870	71.8 (85.)	99 (1.)	92.3 (22.)	17575 (49.)	88
48. Latvia	0.866	72.3 (79.)	99 (1.)	90.2 (31)	16377 (51.)	81
71. Russia	0.817	66.2 (118.)	99 (1.)	81.9 (51.)	14690 (55.)	102
92. China	0.772	72.9 (72.)	93.3 (56.)	68.7 (112.)	5383 (102.)	121

Source: http://hdr.undp.org/en/media/HDR_2009_EN_Complete.pdf

2007. At the same time, the general pattern in Russia is similar – education indicators are the best (literacy 99% and combined participation in formal education 81.9%), economic development could be compared to the most highly developed countries (GDP of 14,690 USD per capita), although life expectancy – 66.2 years at birth – places it in 125th position among the countries of the world. The greatest divergence with Estonia occurred in the period from 1995 to 2000.

Table 1.2.2 shows Estonia's positioning in regard to all the components of the Human Development Index compared to the Nordic countries, the other countries in the top five in respect to human development, the new EU members states, as well as Russia, the US, Japan and China. This is based on the UNDP Global Human Development Report for 2009, in which the comparison is based on data from 2007. The top five countries in the HDI (based on UNDP methodology) have not changed in the last three years – Norway, Australia, Iceland, Canada, and Ireland have the highest indicators. At the same time, it should be taken into account that the latest Global Human Development Report is based on 2007 data, and therefore, describes the state of these countries immediately before the economic crisis. Next year's report will provide an idea about how various countries have survived the crisis and the 2011 report will probably provide significant clarity. Considering the relative inertia of some of the parameters in the index (public health, educational level) compared to the economic growth measured by GDP, the impact of such a serious economic crisis will probably be apparent for several years to come. In order to get an idea of the possible impact of the economic recession on human development during the next few years, we have provided a table based on the data of the World Monetary Fund on the change in GDP between 2007 and 2009[1]. Considering the strong impact of GDP on the general index of human development, and the fact that Estonia's drop was steeper than that of Poland, Hungary and Slovakia, which followed us in the ranking, it is probable that our position in the ranking of human development will fall below theirs, but be higher than Latvia and Lithuania.

Sustainability of economic growth and human development

Of the human development indicators *GDP growth* in Estonia has been among the fastest in the world, both in the last decade (2000-2007) and in comparison to 1990, i.e. before the economic recession in the first half of the 90s. In 1990-2007, Estonia's annual average nominal GDP growth per capita was 5.3%. Only eight countries have demonstrated faster growth, whereas only Ireland (average annual growth of 5.8%) was a wealthier country. At the same time, the speed of Estonia's economic drop in 2008 was third in the world (-3.6%) after Zimbabwe (-14.1%) and Latvia (-4.6%) and ahead of Ireland (-3.0%) (CIA World Factbook 2010). The 2009 economic recession in Estonia was probably one of the most serious in the world, even if we console ourselves with the thought that things are worse in Latvia.

Based on the dynamics of the UNDP economic index (see Figure 1.2.3), Estonia's position in the ranking of countries based on GDP has improved four places compared to 2000 (46) and fourteen times compared to 1995 (56), while we fell one place compared to 1980 (41). At the same time, the 30 countries with the highest economic development have competed amongst themselves during the last 27 years, if we exclude the increase in Equatorial Guinea that was based on the discovery of oil reserves.

To date, the Estonian economy has grown at quite a feverish pace. This has strengthened the belief that Estonia can start increasing its wealth after the economic crisis just as quickly, and do so at a faster pace than the rest of the world. Chapter 6 of this report analyses whether these expectations are justified. We can see that economic growth is important from the standpoint of human development, but in Estonia's case sustainability will be the determining factor (also see sub-chapter 1.5). It should be kept in mind that so far Estonia's economic success has been based to a significant degree on the inflow of cheap foreign capital (debt financing and direct investments), which is unlikely to continue at the same pace. The expectation that the spontaneously rapid economic growth of Ireland, Singapore or Hong Kong will be repeated in Estonia is also not justified. Their starting positions have always been higher than Estonia's and to arrive at their pre-crisis peaks they did not have to withstand declines

[1] Calculations are based on the IMF World Economic Outlook, Oct 2009, last viewed on 30.01.2010 http://bx.businessweek.com/global-economy/imf-world-economic-outlook-weo---sustaining-the-recovery-october-2009/6212264591125471731-19d4f9aa805ea5e755d7cb69f05f9058/,

as deep as those suffered by Estonia in the 1990s or in the current economic crisis.

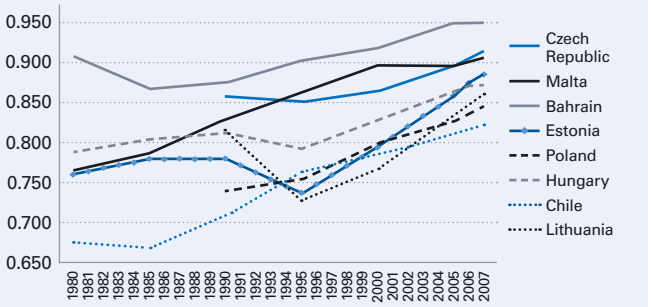
Economists have stressed (see Chapters 6 and 7 of the 2008 Estonian Human Development and Chapter 6 of this report, as well as the Development Fund's 2009 White Paper), that in order to achieve new economic growth, Estonia must change the structure of its economy. Currently, labour-intensive sectors predominate in Estonia's exports, and exports primarily comprise interim products with little added value, while there are relatively few products directed at end consumers. The percentage of knowledge-based services among exports is also small. The depth of the crisis in Estonia vividly confirms the assessments of economists that such an economic structure is unsustainable. Only companies that are able to increase productivity and successfully compete in the worlds' markets will survive. However, this means the structure and qualifications of the labour force will acquire greater importance as basic factors for economic development. Or in other words, in Estonia, the relationship between economic development and human development will also become apparent, as is typical in other highly developed countries. We will examine this below in a more detailed treatment of the relationship between education and the labour market.

For small countries, its population and their life expectancy are critically important

Another important component of human development is the population's life expectancy. In the 21st century, there has been a noteworthy increase in lifespan in Estonia, especially compared to the second half of the 20th century. However, the relative success of this achievement has been small because convergence with the comparative countries – even those with very long life expectancy – has been modest, since people all over the world are enjoying longer lives (see Figure 1.2.4). At the same time, when assessing the Estonian population's success in advancing the average lifespan, one must take into account that the initial level (especially if we take 1994 as the base) is very low when compared to the country's other indicators. Already in last year's human development report we recognised that Estonia's residents have never before lived as long, yet the life expectancy of Estonian men is at a level that prevailed in the developed countries in the 1970s. The lifespan of Estonian residents has increased faster only in comparison to Georgia, Lithuania, Jamaica, Romania, and Belarus. On the other hand, the difference with the developed countries has essentially not decreased and some countries (for instance Chile) have been able to maintain a pace of economic development similar to ours and also to increase the life expectancy of its citizens.

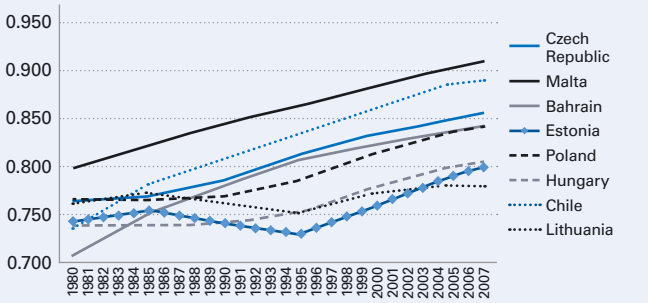
It must continue to be recognised that, since the restoration of independence in 1991, the Estonian population has been decreasing due to negative natural population growth. The Estonian population increased rapidly between 1970 and 1990, and besides immigration, a role was played by positive natural population growth. However based on census data, as a result of negative natural population growth as well as emigration, the Estonian population decreased by about 12% in the 1990s (Uibu 2001). In 2008, the population decreased by 647 people due to negative natural population growth. Based on initial data, in 2009, the difference between deaths and births was 317, which was the smallest decrease in natural growth since 2001 (see Figure 1.2.5).

Figure 1.2.3. Change in the GDP index in selected countries



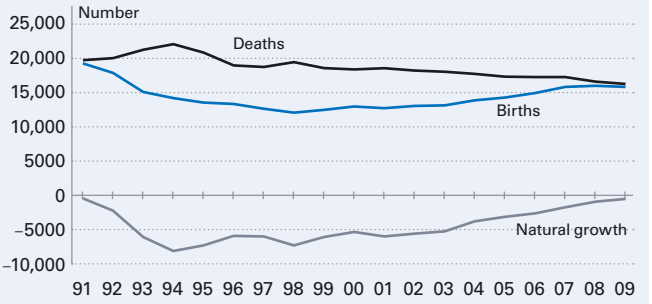
Source: Human Development Report, UNDP 2009

Figure 1.2.4. Life expectancy trends in selected countries



Source: Human Development Report, UNDP 2009

Figure 1.2.5. Change in natural population growth in Estonia 1991–2009

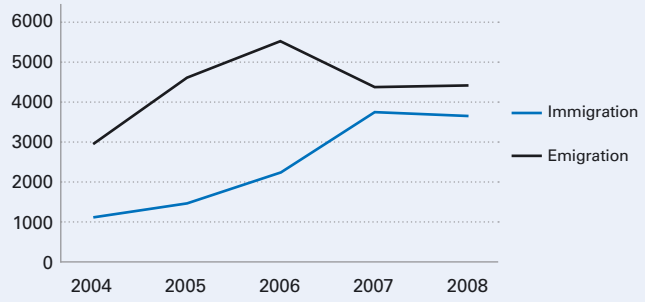


Source: Statistics Estonia 2010

Therefore, natural population growth remains negative in Estonia. The positive news is that, based on initial data, the number of deaths decreased by 474 in 2009, although on the negative side, it must be recognised that for the first time since 2001, the number of births has decreased by 144 (Statistics Estonia 2010).

Initially, in connection with the drastic economic recession, an increase in the mortality rate was predicted, but actually the mortality indicators for 2009 were the best, or lowest, for the entire period of re-independence. However, the indicators for the second half of 2009 indicate a certain increase in the mortality rate during some months as compared to previous years. By the time this

Figure 1.2.6. Dynamics of immigration and emigration 2004-2008



Source: Statistics Estonia 2010

report is published, it will be clearer whether the economic crisis has also started to cause an increase in the mortality rate, as well as a decrease in the birth rate. One possible explanation for the change in demographic indicators may be found in the delay in the actual deterioration of people's living standards compared to macroeconomic indicators.

It has been empirically confirmed and generally accepted that when a society's wealth increases beyond 10,000–15,000 USD the indicators for the population's health do not necessarily continue to improve. Therefore, Estonia is definitely among the countries where the society's total growth of economic wellbeing will not guarantee healthy living standards for the population. This will depend on how many people will benefit from economic growth and what priorities are established in the government's social policy. According to Statistics Estonia, in 2000 to 2007, the differences in incomes, and thereafter the Gini Coefficient, decreased in Estonia from 0.362 to 0.302. True, in the same period the relative poverty rate also increased from 18.3 to 19.5, primarily among 50–64-year-olds (13.9 and 19.5 respectively) and especially pensioners (16.0 vs. 39.0).

Compared to the past, Estonia's social protection system is also significantly better off than during the previous economic recession. For instance, the compensation for lost wages, which is provided for nine months after the onset of unemployment by the Unemployment Insurance Fund, mitigates hardship and helps a large number of people to cope with difficulties, assuming they succeed in finding new jobs. At the same time, the fall of 2009 marked the start of a period when tens of thousands will lose these benefits and their main source of legal income will be unemployment benefits of 1000 EEK per month, and subsistence benefits. The aforementioned trend is confirmed by the survey published by Statistics Estonia, which shows that the number of people who say they are having difficulties covering their basic subsistence costs has essentially doubled (158,000) by the third quarter of 2009 (Ibrus 2009).

What will be the actual impact of the greatest economic recession in the last half century on the Estonian population becomes only clear in the next few years.

Will family and population policies be able to adapt to the changed economic situation?

Following the restoration of independence, general economic growth and probably the government's family policy were able to increase the birth rate. In 2009 the increase halted. Whether this is temporary will become clear in the next few years. The experiences of other countries have confirmed that an important influencer of population growth in countries with high living standards is a prevailing sense of social and economic security throughout the entire life curve.

The family policy that was shaped during the years of rapid economic growth in Estonia primarily provides financial support for families with children, whereas the benefits are now more related to parental benefits and above all to the birth of children (Võrk, Karu 2009). During the economic recession, parental benefits have been preserved, but universal child benefits have been reduced. At the same time, children's poverty is reduced most effectively by providing benefits to families with several children. Citing endeavours to achieve effectiveness, the government is also searching for other ways to implement needs-based social benefits. Here it is important to keep in mind that needs-based benefits are directed at providing minimal subsistence, not at reducing inequality or improving human development or the quality of life. At the same time, it is already apparent in Estonia that the implementation of other family policy measures, such as guaranteeing opportunities for childcare and hobby education, is complicated by a shortage of money, which could inhibit social development in the future.

In addition to births and deaths, the Estonian economic and social environment is affected by how many of the people who are born here wish to emigrate and how many people from abroad wish to come to live in Estonia. Generally, reliable emigration data does not exist, since it is complicated to maintain statistics on people leaving the country, especially when the migration is within the European Union.

To date, the plans and motivations of people who are likely to head to a foreign country has received the most attention, and it has been possible to measure emigration in specific job groups (for instance, among healthcare workers). Attempts have been made to estimate the number of emigrants to foreign countries and the number of people working abroad. Estimates have ranged from 10,000 to 200,000 people, although more reliable estimates are 15,000 to 20,000. When making numerical assessments, the precise status of the emigrants has often been unclear – are we dealing with permanent changes in residence or temporary changes in jobs and residences (Statistics Estonia 2009a).

Figure 1.2.6 shows that after accession to the EU, both immigration and emigration increased. Some stabilisation occurred in 2007, when the number of emigrants decreased. However, the most important fact is that more people left Estonia than arrived throughout the period under examination.

The greatest negative balance in emigration was among young people (15–29-year-olds) in 2005, when almost five times more people left Estonia than arrived (1552 vs. 323). By 2008, the greatest relative difference between immigration and emigration (1.36 times) was among 30–40-year-olds and children.

Even if the absolute numbers are not precisely fixed, one must take into account that the continuation of a negative migration balance among the young may have serious consequences for the sustainability of Estonian society. Therefore, guaranteeing young people sufficient quality of life and opportunities for self-realisation are also important from the standpoint of migration.

1.3. Unemployment – the greatest challenge for Estonia's human development

In 2009, the rapid increase in unemployment was one of the most burning issues for Estonian society, and the number of unemployed is continuing to increase in 2010. The highest previous level of unemployment in Estonia after the restoration of independence was in 2000 when this indicator increased to 13.6%. Thereafter, rapid economic growth occurred along with a uniform decrease in the level of unemployment until 2008, when the unemployment rate started to increase once more. Although, in the long term, the unemployment rate has been consistently one to two percentage points higher among men than among women, the quarterly unemployment indicators for 2009 point to the fact that during the economic crisis unemployment has increased even faster among men. The reason that has been given is that the structural changes brought about by the economic crisis have been expressed primarily in those fields of activity – construction and the industrial sector – where men predominate (Luuk 2009).

The impact of long-term and high unemployment on economic development is easy to understand – only by working one can add value for the society. However, long-term unemployment also affects people personally, by worsening their quality of life and jeopardising their health and ability to cope psychologically and socially. Unemployment is usually accompanied by a reduction in income, and as a rule, general wellbeing also decreases. In addition, it has also been observed that the relationship between unemployment and health can also be reciprocal – poor health can cause unemployment, since people in poor health are more likely to become unemployed (Stewart 2001). International studies on the impact of unemployment on health point to a greater level of illness and higher mortality rate among the unemployed or those who have lost their jobs compared to the rest of the population (Jin et al. 1995; Dooley et al. 1996; Gerdtham, Johannesson 2003; Mathers, Schofield 1998). Unemployment is primarily related to a greater risk of death from suicide, cardiovascular diseases and external factors – traffic accidents and violence (Lundin et al. 2010).

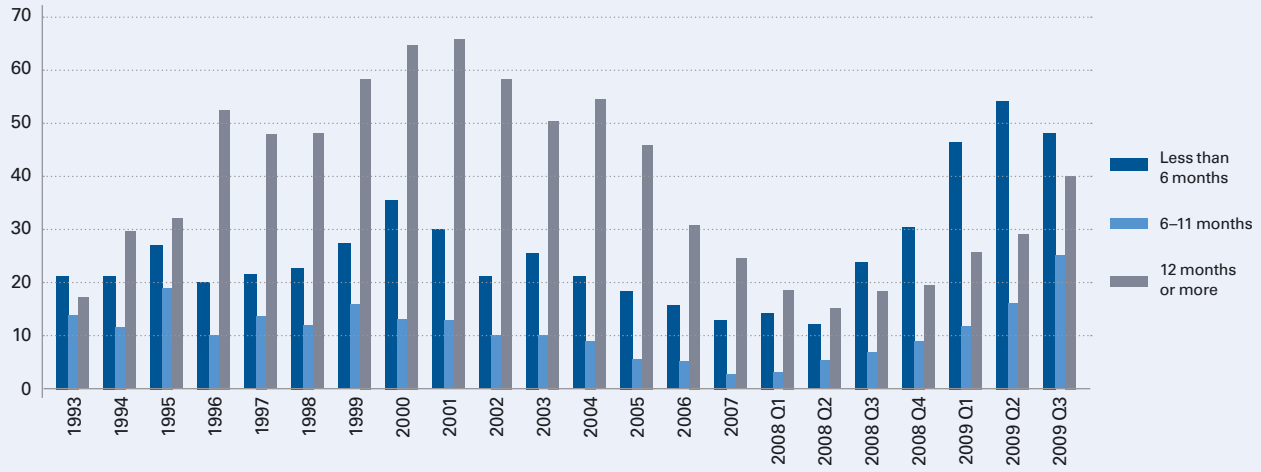
At the same time, based on average correlation studies, the opposite effect has also been noticed in wealthier nations, i.e. a relative decrease in the mortality during an economic recession and increase during periods of rapid economic growth (Bezruchka 2009; Gerdtham, Ruhm 2006). Against a background of a general and constant increase in life expectancy, this paradoxical effect of the growth of life expectancy being inhibited has been interpreted as an increase in the mortality rate during periods of economic growth. The same studies have also pointed to the fact that stronger social protection systems (for instance in the Scandinavian countries) have guaranteed a more uniform increase in life expectancy during periods of economic growth and smaller fluctuations in the mortality rate. The extensive research that compares the reactions to the Great Depression of the 1930s in various states of the United States, or to the economic recession of the same period in Australia, has confirmed that instead of negative consequences, it was possible to achieve a positive impact on the health of the population primarily with social support measures (including social jobs) (Fishback et al. 2005; Potts 2006). Among other things, this points to the considerable ability of the social protection support network of developed welfare societies to support people in temporary economic difficulties, so that their standard of living enables them to preserve a quality of life that secures their health.

The effect of unemployment on health is related to both psychological consequences and monetary problems. The mortality rate of people who are unemployed differs from that of employed people in similar socio-economic groups by 20–25 percent. Initial data on the impact of the current economic depression on health in Iceland have already been published, as well as recently from Latvia, in which the frequency of mental disorders increased by almost 50% and the frequency of suicide by 15% in 2008 (European Commission 2009b). An analysis that involved 26 European countries and examined the impact of previous economic recessions found a definite regularity – a three percent increase in unemployment among working-age people is related to a 4.5 percent in the frequency of suicide and a 2.4 percent increase in the frequency of violent deaths (European Commission 2009). In many countries the frequency of alcoholism and narcotics addiction also increased (Kasmel 2009).

Although there is generally a greater risk of mortality among the unemployed, the importance of personal health choices and risk behaviour must also be considered. Lundin et al. conducted a cohort study in Sweden regarding the 1992–94 economic recession, in the course of which the correlation between being unemployed and the mortality rate were examined among 49,321 middle-aged men. The objective of the study was to examine the connection between unemployment and general mortality, as well as unemployment and specific types of morality, by considering the impact of such indicators as mental health, behavioural risk factors and social factors during one's life (attempts were made to eliminate the impact of other factors). The study showed that the risk of death did not increase among people who experienced short-term unemployment (90 days or less). However, a higher risk became apparent during longer-term unemployment (more than 90 days). Especially for men who had been unemployed for more than 90 days, there was a considerably greater risk of dying from cardiovascular diseases, from external reasons (primarily suicide), in addition to other reasons (Lundin et al. 2010).

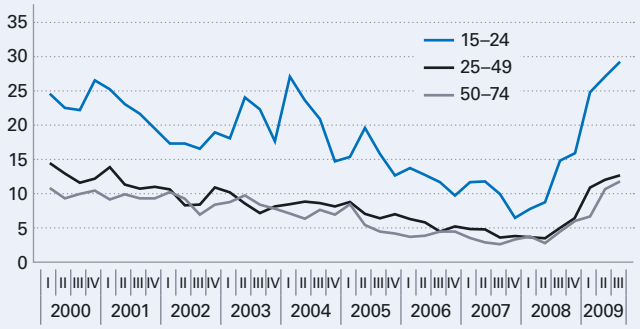
A cohort study was conducted during the economic crisis that struck Finland at the end of the 1980s, when 5% registered unemployment increased to 15% by 1992, and two years later to 19% (Martikainen, Valkonen 1996). Among other things, general unemployment and layoffs also affected highly educated people and white collar employment, similar to the economic crisis that has struck Estonia today. As a result of the study, it was found that in the case of short-term unemployment, it was not possible to confirm a causal connection between unemployment and the mortality rate, and therefore it was concluded that the simultaneous increase in mortality and unemployment is actually related to the lower competitiveness of ill people in the labour market. How-

Figure 1.3.1. Unemployed based on the duration of the unemployment period 1993-2008 (in thousands)



Source: Statistics Estonia 2010

Figure 1.3.2. Unemployment rate by age group, %



Source: Statistics Estonia 2010

ever, in the case of long-term unemployment a connection to an increase in the mortality rate also appeared. It was found that psychosocial factors, stress and shame may be important factors in the deaths among the unemployed (Martikainen 1997).

Since the negative impact on health is expressed to the greatest degree in the case of long-term unemployment, when considering the correlation between unemployment and the population's health, it is important to track the number of unemployed of various durations in Estonia. As a rule, the unemployment rate will remain higher after the end of the economic recession and the case of Estonia confirms this. Although the macroeconomic indicators started to improve in the last quarter of 2009, unemployment continued to increase, which is primarily due to the long-term unemployed (see Figure 1.3.1).

Since the economic recession deepened very quickly, in some sense, the labour market in 2010 will start to resemble the high unemployment situation of 1999-2000, when the majority of the unemployed had also been out of work for a long time. Therefore, the increase in the mortality rate that appeared in the last months of 2009 forces one to consider the possibility that the population's health indicators will start to worsen in 2010, if the difficulties that people have suddenly found themselves in due to unemployment are not compensated by a social support network.

On examining the situation in 2000 the unemployment rate declined in all age groups and dropped to 6.5% in the youngest age group. However, upon the onset of the current economic crisis, unemployment among the young was affected first, followed only a few quarters later by an increase in the unemployment rate among older age groups. It is the youngest age group that is the most affected by the current economic crisis and its unemployment rate reached 29.2% in the third quarter of 2009. In the older age groups, the changes have remained between 12% and 13% (see Figure 1.3.2). Nevertheless, it is important to remember that besides the economic recession the following are among the other important factors affecting high unemployment among the young: the generation that was born during the Singing Revolution reached adulthood; the low educational level among the youngest age group; and difficulties in initially entering the labour market (Luuk 2009).

It is alarming that the unemployment rate for men in the current economic situation is increasing at a faster rate (see Figure 1.3.3).

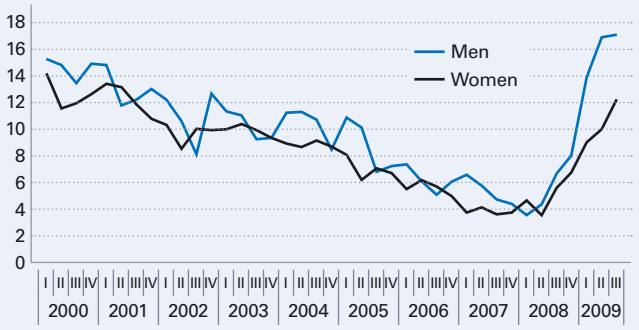
Since the mortality rate is higher among men in all age groups, it can be assumed that unemployment will also impact the mortality rate among men. Especially alarming is the possible effect of unemployment on the health of young and middle-aged men, who were the greatest risk group with respect to mortality in Estonia even before the economic recession (see 2008 EHDR). For instance, the suicidal rate among men is more than four times higher than among women regardless of the economic crisis. Furthermore, approximately three times more men than women die as the result of accidents. Although the mortality rate due to cardiovascular diseases is about the same for men and women, among men there is a greater mortality rate for these diseases among younger men. (Statistics Estonia 2009b)

People's health is affected by both working conditions and occupational positions – the higher the income and position, the lower the likelihood of falling ill. Short-term unemployment has had a positive effect on unhealthy habits. On the other hand, long-term unemployment has a negative effect on health – in addition to the worsening of socio-economic conditions, it is related to stress and alcoholism, which in turn cause crime and violence (Gavrilova et al. 2000). When deaths and the reasons for deaths have

been examined among the employed and unemployed, it has clearly emerged that the unemployed are at a greater risk of dying prematurely, which is often caused by alcoholism (including suicide). In addition, alcohol prevents the unemployed from re-entering the labour market (Lundin et al. 2010; Martikainen 1997).

In summary, increased unemployment is related to an increased risk of losing valuable years in one's life. Considering earlier experiences in developed countries and Estonia itself, it is of critical importane to reduce the spread of unemployment and especially its duration, as well as to increase the existence and extent of social protections for the unemployed. Compared to wealthier nations, Estonia's base of social protection expenditures was relatively low even before the economic crisis. The Unemployment Insurance Fund, however, that was created during the years of prosperity has to great degree mitigated the economic setbacks of the first year of unemployment. Nevertheless, as of the end of 2009, the number of long-term unemployed who will no longer receive unemployment insurance or unemployment benefits is increasing. In Estonia, it is predicted that very high unemployment will persist until 2013, while, the prioritisation of strict fiscal policies has forced us to reduce social protection expenditures. At the same time, the mitigation of long-term unemployment requires the speedy implementation of effective measures to guarantee developmental conditions for children whose parents are unemployed, in order to prevent the long-term negative impact of unemployment on the population's health and vitality.

Figure 1.3.3. Unemployment rate by gender, %



Source: Statistics Estonia 2010

1.4. Is education as Estonia's current human development engine starting to tire?

The education sub-index of the human development composite index in Estonia is already at a very high level (0.964), higher than in most of the countries which have similar composite indices (see Figure 1.4.1). This puts Estonia in 25th place in the global ranking and 12th in Europe. The UNDP Education Index is compiled from the adult literacy rate and formal education rate.

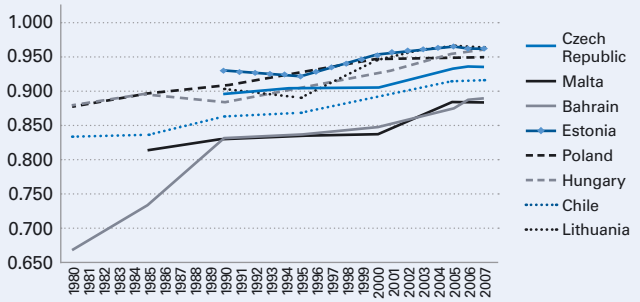
Since 99% of the population is considered to be literate in all developed countries, the gross enrolment ratio determines the difference internationally. A detailed description of the calculation of the education component of the UNDP Human Development Index was provided in the 2008 Estonian Human Development Report. Despite a simplified quantitative approach, this indicator is considered to be sufficient to differentiate countries with developed educational organization from the rest. Based on this index, Estonia is indisputably among the best. However, Estonia's educational development indicators deserve a more detailed examination, especially considering the meaning and impact of education on people's wellbeing and the competitiveness of countries.

Firstly, it is worth analysing, which educational indicators in this global human development index receive the highest assessments, and how they are assessed in countries that can be used for a comparison with Estonia. The education indicators of the countries with the highest level of human development are worth the top ranking (see Table 1.4.1). While the numerical differences at the top are slight, the difference achieved by the first six countries compared to the remaining top countries is based primarily on the education index. Only Iceland is 12th in the education ranking, but their position has generally been improving since 1980.

What role does education play in determining a country's position in the human development race? Figure 1.4.2 compares Estonia with four countries in the world with very different indicators for formal education. The countries were selected based on the very different choices made in such a conservative field as education. As stated earlier, as a rule, the top countries compete among themselves and changes are minimal. Therefore in order to be on par with them, it pays to analyse the behaviour of countries where rapid changes have occurred.

The rapid development of South Korea and a comparison with Estonia has already been discussed above. South Korea has paid great attention to education since the 1960s, when the developmental level of the country was comparable to Afghanistan, and this has been considered the reason for the economic success that the country has achieved. Korea's gross enrolment ratio, which is measured by the UNDP, is one of the highest in world, while the performance of Korean students in the PISA tests has also been excellent. A very different example is provided by Russia, which like Estonia inherited 100% literacy from the Soviet period along with an extensive educational system that provided free education. Yet, a significant reversal has occurred in Russia's education index, along with the deterioration of the population's health and the economy. An interesting European example is Switzerland, which after 2005 has fallen to 40th place in the education ranking, while its numerical indicator has essentially remained unchanged (0.936). Above all, this shows that the new developing countries are aggressively making a stake in education in international competition. Estonia's numerical indicator in the education index has remained at a con-

Figure 1.4.1. Education index trends in selected countries



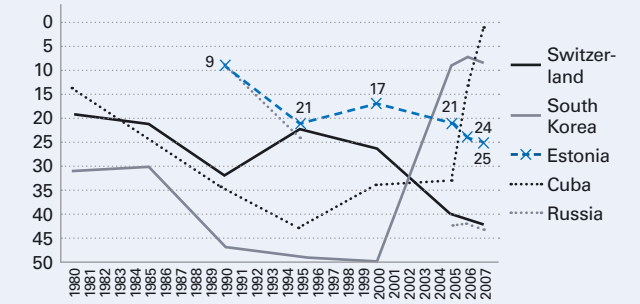
Source: Human Development Report, UNDP 2009

Table 1.4.1. The education index positions of the "top countries" in the HDI

	Position in the HDI	Position in the education index		
		2005	2006	2007
Norway	1	6	6	7
Australia	2	1	1	1
Iceland	3	14	10	12
Canada	4	5	5	6
Ireland	5	7	8	9
Netherlands	6	8	9	10

Source: Human Development Report, UNDP 2009

Figure 1.4.2. Positions of the countries in the ranking of selected countries in the UNDP education index



Source: Human Development Report, UNDP 2009

sistently high level, although with increased competition at the top we have constantly declined in the ranking.

Based on the above, one must question Estonia's strategy for developing education. As an important comparison, one should immediately note that all the successful small European countries have made significant contributions to education based on the UNDP standard of measurement. Singapore, which has a conspicuously low education index, has balanced its great domestic inequality with a carefully directed immigration strategy and a world-class basic educational system, thereby guaranteeing the implementation of the best expertise for the development of the country.

Starting with general education, one must recognise that even during the period of prosperity, the dropout rate in Estonia's general education schools was excessively high. For instance, in 2007, more than 750 students that were enrolled in daytime study at basic schools dropped out. In 2008, there were more than 500 dropouts. If we include those attending evening classes and those participating in distance learning, the totals for those years were approximately 850 and 600 respectively. If we further add those who discontinued their studies in upper secondary school, more than 2000 students dropped out during these two years (Statistics Estonia). More than 5000 students discontinued their vocational studies in 2007 and 2008, whereas almost half were studying in sectors that were very successful at the time, i.e. technical studies, manufacturing and construction (Estonian Education Information System (EEIS) 2010). This fact clearly indicates that during the period of economic growth, students were not sufficiently motivated to acquire vocational education since ample opportunities were provided by the labour market for workers without the corresponding level of education. Vocational education is not able to sufficiently prepare qualified labour that corresponds to the needs of the economic structures. Vocational curricula must be planned in close cooperation with the business sector and their content must correspond to the needs of the labour market. It is also important to guarantee the quality of the teaching staff, including paying more attention to finding staff with business experience and with substantive entrepreneurial experience.

During economic difficulties and under conditions of increased unemployment, people who have low level of competitiveness and who do not have a proper education are at greater risk of becoming unemployed. However, the increased unemployment caused by an economic recession puts many students at risk of not being able to cope, which may place them at risk for dropping out. The reduction in incomes and jobs is perceived most sharply by students who study at fee-paying places. Unemployed parents with difficulties coping may also impact the educational opportunities of students in general education schools, including the acquisition of informal education. Thus, as families' financial situations worsen the ability to pay for students' school supplies, school lunches and hobby activities decreases. When the financial situations of families and students worsen, the continuation of young peoples' education is also put at risk. In the middle and long term this could also mean a significant reduction in Estonia's labour potential. Therefore, educational institutions and the government have a significantly increased role to play in guaranteeing social security and the ability to cope. At the same time, the opportunities for educational institutions and the government to mitigate the problems of students with financial difficulties have worsened. Extracurricular activities, which have a very important role to play in levelling socio-economic differences among students, tend to be the first place where cuts are made during difficult times. We see many examples of this today, e.g. imposition of fees for long-day groups in Tallinn's schools or cuts in the funds for hobby education (Ministry of Finance 2009).

In addition to the social problems that have been amplified by the economic recession, another great concern for Estonia's education system is the drastic decline in the number of children, which will also cause a sudden decrease in the number of students studying at and graduating from upper secondary school. While in the 2006/2007 academic year more than 36,000 students were enrolled in daytime studies in the 10th to 12th grades,

42% fewer students are forecast for 2013, or slightly less than 21,000 students (EEIS 2010). This will successively create the need at all educational levels to adapt the Estonian educational system to the reduced number of students. Unlike vocational education where the reform of the school network has been carried out to a great degree, in general education this is only in the initial stages. Along with the reform of the school network, it is also necessary to guarantee the conformity of educational content to today's changing requirements. It is critical to update the curricula, organise teacher training, and modernise teaching methods, along with the broad implementation of information technology and e-learning. Other new topics (e.g. gifted children, various topics that are included in the curriculum), and the modernisation of teaching materials, especially in the natural and exact sciences, are also important (Ministry of Finance 2009).

The PISA (2006) study showed that Estonia is one of the countries where the students' performance is not particularly dependent on their socio-economic or cultural backgrounds (see also the 2008 EHDR). However, a separate problem is developing related to the correlation between a school's language of instruction and the students' performance. The PISA study demonstrated that students from schools with Estonian as the language of instruction outperformed the students from schools with Russian as the language of instruction in all the main competence fields of assessment (natural sciences, mathematics and reading). The schools with Russian-language instruction lagged furthest behind in reading (Henno et al. 2007)[2]. As pointed out by the authors of the Estonian PISA study, the poor performance of the students from Russian-language schools was apparently caused by a subject-didactical lag caused by the teachers' language barrier. Poor Estonian-language proficiency has hindered the participation of teachers from schools with Russian-language instruction in various forms of in-service education, such as information days, special training and courses for mathematics teachers. At the same time, the OECD Teaching and Learning International Survey (TALIS) (Loogma et al. 2009)[3] does not directly deal with the problem of the access of teachers from Russian-language schools to training courses – in their opinion they participated in courses, conferences, training programmes and cooperation networks just as often as teachers from Estonian-language schools, sometimes even more often. Apparently, this may result from substantive differences in training.

In the course of the current economic recession, the issue of so-called "invisible education", i.e. private tutoring, may become more acute. The initial results from the international study conducted by PRAXIS in Estonia in 2009–2010 indicate that this is a very common phenomenon, the exact extent of which is hard to measure due to its concealed character. Teachers estimate that 10–40% of basic school students have been privately tutored in some subject. For instance, during the last three years, about 17–23% of the students that have taken the state examinations in Mathematics are known to have attended courses to prepare for the exam (PRAXIS 2010a).

Since the study was conducted during the economic recession, the impact of the parents' reduced incomes was clearly visible in the fulfilment of special teaching needs. One reason for the expanded popularity of private tutoring is considered to be increased financial opportunities, along with a generally more competitive mentality. The students' poorer study skills may also play a role. At the same time, the grown demand of recent times has also been caused by the increased desire of young people to study at higher education institutions abroad.

The key question in higher education is how to increase the international competitiveness of the higher education provided in Estonia, as well as attract more foreign faculty members and students to work and study in Estonia. The demographic pressure that is already now necessitating the modernisation of the Estonian school network will also necessitate changes in the higher education landscape in the next few years. In recent years, the Estonian higher education landscape has been characterised by fragmentation and mutual competition, which has inhibited the concentration of resources on the provision of more competitive education. In order to improve quality, priorities have to be set and development must focus on specific strengths. In the next few years, demographic pressure and economic difficulties will require the significant reorganisation of higher education. Many private institutions of higher education will be forced to reduce the number of students, and due to financial difficulties, to merge with larger institutions of higher education or terminate operations. In order to guarantee the quality of higher education, the potential that is spread out among various institutions of higher education must be concentrated into strong centres of competence that can provide top-quality scholarship and cooperation with local companies and foreign partners must be developed (Ministry of Finance 2009).

Considering Estonia's relatively broad regional and socio-economic stratification, it is important to analyse how, as a relatively small country, we can provide the entire population with appropriate opportunities for self-realisation. Unlike the US or Singapore, a strategy that is based on sizable immigration is not an option for Estonia because of prevalent social attitudes and the fact that it is a member of the European Union. For the purposes of social justice and the effective use of human resources, as well as in personal and public interests, it is important to support the development of all people's interests and abilities. This is especially true if we keep in mind the goals that have been set for our country for the achievement of a knowledge-based economy. With respect to labour productivity, Estonia clearly lags behind the old European member states. The PISA (2006) study clearly indicated that, although the basic education provided in Estonia is of high quality, we still do not spawn as many top students. Considering Estonia's small population, it is critically important to maximize the potential of all individuals in terms of their personal development and their contribution to a sustainable knowledge-based society

Equitable access to higher education has been set as priority for the Bologna Process and for the European Higher Education Area for the decade to come. As access to higher education is linked to students' socio-economic background, a comparison of the fathers' educational level

[2] www.ekk.edu.ee/vvfiles/0/PISA_l6pparuanne_041207.pdf

[3] www.hm.ee/index.php?popup=download&id=9662

and occupational status of higher education students contrasted with the same indicator in the overall population are internationally one of the most used indicators to describe access to higher education. With regard to both indicators, Estonia, like Italy, is ranked on the average level among the European countries (EUROSTUDENT 2008). At the same time, the comparison between students from rural settlements and with low parental education level on one hand and students from secondary education institutions located in big towns and with higher parental education level on the other hand shows that the former are less likely to continue their studies at university. Therefore, the student population at universities is considerably more homogeneous, reflecting the society's diversity to a lesser extent. (PRAXIS 2010b).

The access to higher education as regards new secondary school graduates admitted to the first cycle is good in all counties (PRAXIS 2010b). The Estonian higher education landscape is diverse with respect to the educational institutions. Educational institutions with various orientations can provide opportunities for acquiring higher education that correspond to different interests and needs. At the same time, the differences in socio-economic background of student body in various types of higher education institutions suggest some segregation of higher education institutions (PRAXIS 2010b).

A separate problem has developed based on the differences in the educational opportunities and career paths of the graduates of Estonian- and Russian-language schools (see Chapter 4 of this report). Based on the Praxis study (2010b), the proportions of new secondary school graduates admitted to the first cycle of higher education among graduates of secondary schools with either Russian or Estonian as a language of instruction are similar, suggesting equity of access to higher education. At the same time, only about a quarter of the Russian minority considers its opportunities for access to be equivalent to Estonians (Saar 2008). Upon a closer examination of the education choices among Estonian and Russian youth, it appears that compared to Estonians, young Russians are less likely to be studying in fee-paying places in the public universities. When having to pay study fees, Russians prefer private universities or private professional higher education institutions, while among Estonians the preference is contrary (PRAXIS 2010b). In order to reduce the socio-economic filters described above, it is important to improve the quality of previous levels of education, especially in the rural settlement.

However, even in the case of high participation in formal education, the problem of conformity of the educational content to the needs of the people and the labour market remains. It is here that the greatest weakness of the Estonian education and research system clearly lies. Very specific skills are needed in order to participate in the premier league of countries, the development of which was not promoted by an economy that is based on cheap labour and abundant debt financing. Based on the Global Competitiveness Report (World Economic Forum 2009) this has been clearly recognised and acknowledged by entrepreneurs in Estonia as well (for more information, see Chapter 6 of this report).

If the country does not prepare sufficient labour that corresponds to the needs of the economy, there is a danger that the companies necessary for future growth fields will leave Estonia or not come to Estonia, which will be followed by brighter people leaving the country since jobs worthy of their abilities will not exist. For a country the size of Estonia this can easily develop into a closed cycle.

At the same time, it is very complicated for the educational system to provide labour that corresponds to Estonia's future needs, since Estonia lacks an achievable and widely accepted vision of the future of Estonia's economic development and there are no efficient mechanisms for the coordination of education, economic and labour market policies.

The analysis of Estonia's long-term labour market needs that was ordered by the State Chancellery called attention to the fact that an analysis of quantitative educational indicators is not sufficient for a meaningful discussion of education policy (Eamets et al. 2009). For instance, Denmark has achieved the maximum level according to the UNDP education indicators, but numerically there are more people in Estonia that have acquired higher education. Therefore, a high-tech welfare society can be achieved with a significantly smaller percentage of workers with tertiary education.

Actually, against the background of Estonia's current economic policy choices, educational policy has become the most important lever for the government, which could be used to direct structural changes in the economy. In the light of a low tax burden and strict budgetary discipline, the opportunities for active budgetary or financial policies are very limited or practically non-existent. However, considering the long-term nature of the educational process, it would be important to create a systematic industrial policy to replace the current project-based support systems and to link it to educational policies.

In the same State Chancellery report, it was recognised that the large percentage of higher educated people in the Estonian labour force, combined with low productivity and meagre added value per worker indicates problems in the quality of higher education and so-called "formal over-education" (Eamets et al. 2009). A phenomenon of students concentrating simultaneously on full-time study and employment has developed in Estonian higher education which raises questions about the quality of higher education and the rigorousness of requirements. According to EUROSTUDENT (2008), Estonia has an extremely high proportion of employed students among the student population (66%) while in many European countries this figure is below 50%. At the same time, Estonian students declare spending the least time in Europe on activities related to their studies (25 hours a week), which is one of the lowest indicators in Europe. The situation of the students suffering from financial difficulties is worsened by increased unemployment and the resulting reduction in the family support and obstacles for receiving student loan.

The final conclusion of the report by Eamets et al. (2009) emphasise that without significant changes in current education and research policies, it will not be possible to realise the economic model that is based on the Strategy for a Knowledge-Based Estonia.

Yet, the changed economic conditions have not brought forth any new problems for the education and research system. It is only that existing problems have become even more acute due to the drastic economic recession. This was also recognised by the analysis car-

ried out to provide an interim assessment of structural resources. (Ministry of Finance 2009) In the interim assessment ordered by the Ministry of Finance in 2009, it was recognised that the analysis of the education and research sphere, which was presented in the implementation plan for structural resources, does not include a sufficiently clear vision of which strategic changes are most important from the viewpoint of Estonia's development. The implementation plan lists the problems by different fields of activity (general, vocational, higher and adult education, research), but all the fields are presented as being equally important. Since a sufficiently concrete vision of the structural changes that are needed in the economy is lacking in Estonia, then there is no plan for the steps to be taken to support these structural changes in education and research. Therefore the objective of developing a knowledge-based economy remains abstract. In Estonia, there is a desire to develop all directions in various spheres of life simultaneously. This also applies to the educational system.

The economic crisis and accompanying unemployment will inevitably be accompanied by a need for greater continuing education and retraining. The participation of adults in lifelong education has increased from year to year, but still lags behind the indicators for successful countries. While in 2006, 6.5% of the adults aged 25 to 64 participated in adult education during the four weeks prior to the survey, the indicator increased to 9.8% in 2008. (Statistics Estonia 2010) This is lower that the target levels set for 2010 (12.5%) as well as the indicators for the countries that are at the forefront of Europe (30.2% in Denmark, 23.1% in Finland and 25.1% in Iceland) (Nurmela 2009).

Based on an analysis of 2007 data from Statistics Estonia, the most frequent reasons for low participation in lifelong education are not considering continuing education to be important for their future (both career-wise and personally), the unwillingness to return to school, as well as costliness of studies, and the belief that one is too old to learn (Nurmela 2009). By ethnic group, the participation of adults in lifelong education differs somewhat. Kurvits (2008) has directed attention to the fact that there are no age-related differences between ethnic groups among students that are 20 years old or younger, but among middle-aged (25 years old and older) students, fewer Russians than Estonians participate. (Nurmela 2009)

To date, the government has demonstrated a relatively passive or one-sided attitude, which has succeeded in increasing the median indicators somewhat but reaching the levels of top comparative countries is being inhibited by the fact that lifelong education more often seems to be the birthright of those who have already acquired higher education or those who are younger or Estonian (for more information, see Chapter 4 of this report). Among people with a lower level of education, who should be participating in lifelong education, this continues to be a problem. The solution to the problem can be found in simple truths – measures must be designed to meet the needs of various target groups. For instance, it has been found that women are more often personally motivated than men, whereas among older people, many feel that they do not need to study for the personal or work-related lives, and due to their age, they are reluctant to start studying (Nurmela 2009). In many countries, in order to guarantee women better continuing education and re-training opportunities, for instance, additional childcare or caregiver services or financing for these services have been provided to the participants in training courses. In Estonia today, insufficient attention has been paid to the relationships between social policy, including the aging of the population, and lifelong education. An example of this can be seen where the government has decided to increase the retirement age to preserve the country's economic competitiveness and reduce budget expenditures, while simultaneously the new Adult Education Strategy 2009–2013 has eliminated activities directed at older people, although these were previously limited to computer studies. In addition to involving people with low competitiveness in retraining and continuing education, the need has arisen to quickly create opportunities for self-education for people with greater motivation to study so that they can have the opportunity to update and supplement their knowledge and skills and to become employed again.

There are hidden threats that must be considered if the policy that is implemented for continuing education and retraining is passive and unfocussed. For instance, if the continuing education and retraining do not correspond to the needs of potential jobs, the competitiveness of the people who have gotten into trouble on job market may not improve, and repeated participation in continuing education that does not produce results may actually be demotivating. At the same time, one must consider the possibility that the economic recession in Estonia will turn out to be more serious and longer than predicted, which will mean that that local companies and new foreign investors that come to operate in Estonia will not be able to create enough new jobs to relieve the high level of unemployment. By not linking continuing education to the measures undertaken to create new jobs, a risk exists that valuable human resources will be lost through discouragement and emigration.

1.5. Alternative possibilities for comparing the wellbeing of countries

If the appeal of the approach that relies on the UNDP Human Development Index is based on its simplicity, alternative approaches try to examine the background for successful development and the possible cause-and-effect relationships with the help of multifaceted standards of measurement. Among others, the shortcomings of measuring the wellbeing of a society based on the gross domestic product (GDP) and its growth have been cited since the time that this global indicator was put into use. In addition, the traditional basic indicators of the devel-

Categories of the Legatum Prosperity

- Basic indicators of economic development
- Enterprise and innovation
- Democratic institutions
- Education

Table 1.5.1. Comparison of the results of the UNDP Human Development Index and the Legatum Prosperity Index

UNDP Human Development Index (182 countries)	Legatum Prosperity Index (104 countries)
1. Norway	1. Finland
2. Australia	2. Switzerland
3. Iceland	3. Sweden
4. Canada	4. Denmark
5. Ireland	5. Norway
6. Netherlands	6. Australia
7. Sweden	7. Canada
8. France	8. Netherlands
9. Switzerland	9. United States
10. Japan	10. New Zealand
11. Luxembourg	11. Ireland
12. Finland	12. United Kingdom
13. United States	13. Belgium
14. Austria	14. Germany
15. Spain	15. Austria
...	...
40. Estonia	31. Estonia

Source: Human Development Report, UNDP 2009 and the Legatum Prosperity Index, Legatum Institute 2009

oped countries have become very similar, so that a difference in the average indicators does not allow for a substantive explanation of the capabilities and sustainability of the society's developmental potential.

In one of his speeches in 1968, US politician Robert Kennedy said that "[GDP] simply measures everything except what makes life more liveable" (JFK Presidential Library & Museum). The Legatum Institute, which is financed by an international financial group, partially justifies its own method for measuring wellbeing in the form of the Legatum Prosperity Index with this quote (Legatum Prosperity Index 2009).

The Legatum Prosperity Index measures both objective statistical indicators and nine wellbeing or prosperity dimensions, which are based on questionnaires with 79 measurement standards, the interaction of which should provide a multifaceted assessment of the advancement of a country's wealth and wellbeing (see box above). The goal is to combine the indicators for economic development, the institutional environment, human development and quality of life, whereas the emphasis is on the factors that actively impact economic competitiveness and the subjective perception of wellbeing by the population (Legatum Prosperity Index 2009).

Although the components of the Human Development Index and the Legatum Prosperity Index (LPI) are quite different (only the contents of the education index overlap to a great degree), both indices provide the basis for a relatively similar result in a comparison of countries (see Table 1.5.1). Of the first 15 countries, 10 overlap. Estonia is in the middle of the best countries based on both indices – 40th (out of 182) in the UNDP ranking and 31st (out of 104) in the Legatum table.

An important conclusion that is emphasised by the authors of the Legatum Prosperity Index is that the key to a society's wellbeing is uniform progress in all the objective and subjective aspects of wellbeing. For instance, the first three countries – Finland, Switzerland and Sweden – are not first in any category, but in all the categories, they are at least among the top 14, and are not below 30th, or the strongest group, in any category.

For Estonia, the above reveals an important truth – in order to from the best of the average into the premier league, broad development of the society must occur. It is also naïve to hope that Estonian will be able to accomplish the same development with a "five-year plan" that has taken decades in other countries.

Among the leading countries, the Legatum Prosperity Index (LPI) positions Estonia at the bottom of the top third of the table based on the basic indicators for economic development (30th), enterprise and innovation (24th) and the quality of governance (19th). Its strengths include export and foreign investments, audacious enterprise and a functioning legal order based on objective indicators. Weaknesses noted in the report include an ineffective banking sector, small domestic market, meagre R&D expenditures and the population's low level of confidence in the governing institutions.

Most of Estonia's indicators are at the same level as its indicators for the level of general development. With respect to the development of democratic institutions, Estonia lies in 34th position. Although essentially everything that is necessary exists, there are problems related to the functioning of these institutions due to disproportionately strong executive power and to the clarity and freedom of the election process.

With respect to the education indicators, according to the LPI (unlike the UNDP ranking) Estonia does not measure up to the best countries. The 35th position in the ranking is based primarily on the incompatibility of the educational indicators with the needs of the labour market, although the quality of the formal education receives high marks.

In the health category, the LPI ranking placed Estonia in a better-than-usual 35th position, since along with results greater emphasis is placed on the structures that should deal with health-related problems. However, the fact that only 59% of the population is satisfied with their health definitely places Estonia among the bottom quarter with respect to this indicator, and does not allow for good results to be achieved on the basis of formal indicators.

In the global comparison, Estonia is a relatively safe and secure place, if we consider for example problems related to wars and refugees. However, violent crimes and thefts are peacetime security issues, which means the people's own sense of security in the global context is either average or slightly below, not characteristic of highly developed countries. Among other things, it is interesting that the so-called "brain drain" is also an indicator that has been placed in this category, since in an open world smart people do not remain for long in poor conditions. True, to date, Estonia does not have any great problems with this indicator compared to other developed countries.

Based on personal freedoms, Estonia is positioned significantly lower than its general ranking – 43rd. The rea-

son is an average level of satisfaction (71% of the population) with personal freedom, but especially the prevalent intolerance in Estonia. The fact that only slightly more than half of the residents of Estonia would like to see ethnic minorities living in their neighbourhood and less than half believe that Estonia is good place for immigrants to live placed Estonia among the bottom 15 with regards to these two indicators. Again, it does not suffice to formally establish freedoms of religion, movement or speech, if they are not supported by societal attitudes. If people do not perceive that they can freely realise themselves, they cannot do so, regardless of the rules that have been established. For the country this means the loss of resources, which does not allow the country to survive in intense, top-level international competition.

Based on the LPI methodology, Estonia's weakest international position is in social capital – of the 104 countries in the survey, Estonia places 94th with respect to social capital. Although this component has already been debated in public discussions in Estonia (Hellam; Tarand 2009), a closer analysis of the results is helpful. Although the authors of the report specifically point out the lack of a religious support network in the short summary on Estonia, the social capital sub-index includes a total of 12 factors. Therefore, in addition to religiosity, the LPI measures participation in other voluntary associations (sports, environmental and art clubs), in addition to the importance of friends and one's trust in them, the culture of charitable donations, help provided to strangers, and voluntary activities. Estonia cannot compare itself to the most developed countries in respect to any of these indicators, which means that the suitable solutions for Estonian society may lie elsewhere than just attending church. However, the development inhibitor created by an insufficient willingness to cooperation, which is related to a lack of trust, has been described in many spheres of life, including business sector. However, it is this trust and ability to cooperate that is measured by social capital.

The gaps in the various LPI categories also definitely reflect the differences in the positions and opportunities for participation of the Estonian- and Russian-language populations. The majority of subjective indicators that involve people's own assessments do not allow Estonia to realise the strengths that formally exist. At the same time, the authors of the index stress that there is no point in a formally nice society if people do not feel good. General satisfaction with life is related to the greatest degree with strong positions in the health, security, freedom and social capital categories.

Figure 1.5.1. Correlation of life satisfaction with GDP growth

Source: Legatum Prosperity Index, Legatum Institute 2009

The Legatum Index, too, lags behind in the reporting of conflicting results caused by radical changes, like many other generalising rankings. The basic indicators of economic development sustained major blows during the economic crisis, while the government's R&D investments have increased significantly due to European Union funding. However, one of the basic conclusions of the authors of the Legatum Index has special significance during a crisis – only in poor countries does economic growth directly increase the population's wellbeing. Starting at a certain level of wealth (about 15,000 USD per capita), economic growth can no longer increase people's feeling of wellbeing (see Figure 1.5.1). In the wealthier countries, the qualitative components of wellbeing, which are related to democracy, freedom, and good governance practices, as well as trust and the ability to cooperate, become increasingly important. Estonia already exceeded this magical 15,000 level last year and the crisis has not toppled our GDP below this level.

1.6. Summary. Crisis as a turning point – the impact of choices on human development

After the restoration of independence, Estonia's society and government have achieved much that merits satisfaction. Financial wealth has increased threefold and life expectancy is longer than ever before. Only the declining population numbers continue to haunt Estonia, although the pace of this decline has been significantly reduced in recent years, and almost became positive in 2009.

However, it would be illusory to believe that the pre-crisis improvements in Estonia's economy, as well as the opportunities for recovering from the crisis, all result exclusively from our own efforts and the wisdom of our leaders. All the more, as the structural economic problems and weaknesses in economic policy that made Estonia into one of the world's countries with the most rapidly declining economies upon the arrival of the international

crisis already existed and were clearly articulated in 2005 (Tiits et al. 2005). Certainly it was significantly simpler to achieve rapid economic growth for Estonia during one of the fastest periods of global development in history. At the same time, the skill of utilizing the opportunities that emerge has been one of the preconditions for Estonia's successful performance. On the other hand, the life expectancy of the Estonian population, although historically our longest, can only be compared to the life expectancy indicators of the older European Union members states in the 1970s, and the internal inequality of Estonian society – whether measured by health indicators or socio-economic status – continues be among the greatest in the European Union. True, the same liberal approach that increases inequality has enabled us to maintain one of the lowest public sector debt burdens in the European Union and to attract large amounts of foreign money. This, in turn, increased everyone's wages, invigorated the country's economy and left behind a large amount of recently constructed real estate. Therefore, Estonia has made choices that have had diverse consequences.

In order to resolve this crisis, the government has placed almost all stakes onto Estonian businesses and foreign investments. The main levers for creating new jobs are supports for enterprise and increased confidence in the country from the introduction of the euro, which could bring back investments. This simple plan of action is associated with big risk, because essentially all government policies are subordinated to mechanically controlling the budget deficit in a situation while strategies in many fields have not been developed yet. At the same time the only immediate effect of introducing the common currency is related to increased international trust, which presumably will quickly reduce the cost of debt financing and increase new foreign investments. In summary, the inflow of foreign money that predated and, in some respects, resulted in the economic crisis is seen as the main strategic economic engine for recovering from the crisis.[4]

Direct public sector investments in human resources have also been reduced (social protection expenditures) and most decisions that have been made have long-term consequences (prioritisation of research and education in EU Structural Funds and the national budget). The government's modest intervention in the stabilisation of the labour market, as well as the generally low level of social expenditures, even before the economic crisis, differentiates Estonia from the majority of developed countries (including the Nordic countries). On the one hand, the chosen course allows Estonia to preserve a favourable position for involving additional money in the future, and upon the restoration of export volumes, for benefiting from revitalised economic growth supported by the taxpayers of other countries. However, in the near future, solutions must be found for several very important questions, which will not just happen by itself upon the recovery of the economy. For instance, how does one finance the social protection systems which are not sustainable with the existing tax base? In addition to improvements in people's health-related behaviour, the advancement of life expectancy in developed countries was significantly supported by broad-based health-care systems starting with the prevention of disease and ending with nursing care. Above we described how well-developed social protection systems support the faster reduction in mortality rates.

In family policy, in order to balance the tremendous budgetary costs that are directed at parental benefits, existing measures have been reduced and the implementation of new measures has been restrained, which could help to increase the population's sense of security and thereby foster population growth. When social problems pile up, a supplemental risk increases that the population will decline due to people, above all young people, leaving the country. If socio-economic tensions increase, the risk of other foci of societal tension developing also increase, such as the escalation of issues related to minorities. Even based exclusively on statistical regularity, one can state that in order to achieve greater growth in the average development indicators it is necessary to reduce socio-economic differences and stratification in the society.

In education policy, it is also necessary to find solutions to socio-economic stratification and the inequality in obtaining high-quality education that is caused by inadequate regional policies, i.e. educational stratification. Considering Estonia's limited human resources, without these steps it will be very complicated to effectively satisfy the need of the labour market in a society with a modern economy.

However, the most critical aspect is the mitigation of unemployment as quickly as possible. Considering the weaknesses of Estonia's social protection system, long-term unemployment has several negative and, in the personal and societal context, very costly consequences – be this worsening health-related behaviour, interruption of studies, or increase in crime. Therefore, in the social context it is important that older people and those with lower qualifications also find jobs. At the same time, the engine for new economic growth is expected to be the creation of jobs for skilled workers with the highest qualifications, which, among other things, means providing them with an acceptable quality of life along with good public services. Without functioning policies, and cooperation between the national and local governments for job creation and the improvement in the quality of life, a closed cycle may develop at some point between unemployment and poor economic growth, whereas based on the experiences of other countries, long-term unemployment among the young may have particularly dangerous long-range consequences.

Fortunately, based on the examples of different countries, in the case of most of these policies it is possible to achieve high-quality solutions even with reasonable expenditures. However, this assumes purposeful and consistent public policies in all strategic fields of activity. As a rule, among the countries with high levels of human development all the components necessary for societal development are uniformly highly developed, regardless of the measurement method. This means that comprehensive solutions for the creation of a worthy living and economic environment are needed, in order to improve or just remain highly competitive at the current development level achieved by Estonia.

[4] The choices for Estonian economic policy in comparison to other countries is analysed in more detail in Chapter 6 of this report.

References

1. Bezruchka, S. (2009). The effect of economic recession on population health. CMAJ 2009. DOI:10.1503/cmaj.090553. www.cmaj.ca/cgi/reprint/181/5/281.pdf (last viewed on 18.01.2009)
2. CIA World Factbook. http://bit.ly/d7sXEj (last viewed on 28.01.2010)
3. Dooley, D., Fielding, F., Levi, L. (1996). Health and Unemployment. Annual Review of Public Health, Vol. 17, pp. 449–465
4. Eamets, R., Meriküll, J., Kallavus, M., Kaarna, K., Kask, T. (2009). Teadmistepõhise majanduse suunas liikumiseks vajalik tööjõud ja koolitusvaldkonnad. Tallinn: State Chancellery
5. Estonian Human Development Report (2009). Tallinn: Estonian Cooperation Assembly
6. EEIS = Estonian Education Information System, www.ehis.ee
7. European Commission (2009a). EU employment situation and social outlook. Monthly Monitor: April
8. European Commission (2009b). Reducing the psychosocial impact of the financial and economic crisis. http://ec.europa.eu/health/ph_determinants/life_style/mental/docs/ev_20090427_rd01_en.pdf (last viewed on 10.01.2010)
9. EUROSTUDENT (2008). Social and Economic Conditions of Student Life in Europe. Final Report. Eurostudent III 2005–2008. www.eurostudent.eu (last viewed on 16.01.2010)
10. Fishback, P., Haines, M., Kantor, S. (2005). Births, Deaths, and New Deal Relief During the Great Depression. National Bureau of Economic Research, Cambridge, MA, WP #11246
11. Gavrilova, N., Semyonova, V., Evdokushkina, G., Gavrilov, L. (2000). The response of violent mortality to economic crisis in Russia. Population Research and Policy Review, 19, pp. 397–419
12. Gerdtham, U., Johannesson, M. (2003). A note on the effect of unemployment on mortality. Journal of Health Economics, 22, pp. 505–518
13. Gerdtham, U., Ruhm, C. (2006). Deaths rise in good economic times: Evidence from the OECD. Economics and Human Biology, Elsevier, vol. 4(3), pp. 298–316
14. Hellam, M. (2009). Usaldus toob tulu. Tallinn: Eesti Päevaleht 03.11.2009
15. Henno, I., Tire, G., Lepmann, T., Reiska, P., Ehala, M. (2007). Ülevaade rahvusvahelise õpilaste õpitulemuslikkuse hindamise programmi PISA 2006 tulemustest. Tallinn
16. Ibrus, K. (2009). Suures kitsikuses elab 160 000 Eesti inimest. Tallinn: Eesti Päevaleht 28.12.2009
17. JFK Presidential Library & Museum. (n.d.). Historical Resources: Quotations of Robert F. Kennedy. www.jfklibrary.org/Historical+Resources/Archives/Reference+Desk/Quotations+of+Robert+F.+Kennedy.htm (last viewed on 18.01.2010)
18. Jin, R., Shah, C., Svoboda, T. (1995). The impact of unemployment on health: a review of the evidence. Canadian Medical Association Journal, 153, pp. 529–540
19. Kasmel, A. (2009). Majandussurutis hävitab tervise. Postimees, www.e24.ee/?id=151340 (last viewed on 16.01.2010)
20 Kurvits, T. (2008). Kõrgharidus, venekeelne õpe ja riigikeelne õpe Eestis. Tartu: Ministry of Education and Research
21. Legatum Prosperity Index (2009). The 2009 Legatum Prosperity Index Report. Methodology, Data, Findings, and Country Profiles. Legatum Institute
22. Loogma, K., Ruus, V.-R., Talts, L., Poom-Valickis, K. (2009). Õpetaja professionaalsus ning tõhusama õpetamis- ja õppimiskeskkonna loomine. OECD rahvusvahelise õpetamise ja õppimise uuringu TALIS tulemused. Tallinn: Tallinn University Center for Education Studies
23. Lundin, A., Lundberg, I., Hallsten, L., Ottosson, J., Tammingsson, T. (2010). Unemployment and mortality—a longitudinal prospective study on selection and causation in 49 321 Swedish middle-aged men. J Epidemiol Community Health, 64, pp. 22–28
24. Luuk, M. (2009). Arengutrendid kriisiaja tööturul. Eesti Statistika Kvartalikiri 3/2009. Tallinn: Statistics Estonia. www.stat.ee/dokumendid/37730
25. Martikainen, P. (1997). Does unemployment cause mortality? www.stat.fi/isi99/proceedings/arkisto/varasto/mart0473.pdf (last viewed on 10.01.2010)
26. Martikainen, P., Valkonen, T. (1996). Excess mortality of unemployed men and women during a period of rapidly increasing unemployment. Lancet, 348, pp. 208–213
27. Mathers, C., Schofield, D. (1998). The health consequences of unemployment: the evidence. Medical Journal of Australia, 168, pp. 178–182
28. Nurmela, K. (2009). Täiskasvanuhariduses osalemise barjäärid: mitte-osalemise põhjuste variatsioonid. Master's thesis. Tallinna University
29. PISA (2006). The Programme for International Student Assessment, OECD
30. Potts, D. (2006). The Myth of the Great Depression. Melbourne: Scribe
31. PRAXIS (2010a). Private tutoring. Unpublished research data. Tallinn: PRAXIS Center for Policy Studies
32. PRAXIS (2010b). Õiglane ligipääs kõrgharidusele Eestis. Tallinn: PRAXIS Center for Policy Studies
33. Ministry of Finance (2009). Struktuurivahendite rakenduskavade hindamine. Tallinn: Ministry of Finance (client), PRAXIS Center for Policy Studies, Ernst & Young, Institute of Baltic Studies, Sustainable Estonia Institute
34. Saar, E. (2008). Kõrghariduse ekspansioon ja tööturu võimalused. Heidmets, M. (toim.), Estonian Human Development Report 2007. Tallinn: Estonian Cooperation Assembly, pp. 20–27
35. Statistics Estonia 2009a = Krusell, S. (2009). Eesti residentide töötamine välisriigis. Eesti Statistika Kvartalikiri 2/09. Tallinn: Eesti Statistics Estonia
36. Statistics Estonia 2009b = Statistics Estonia database (2009). www.stat.ee (last viewed on 18.01.2010)
37. Statistics Estonia 2010 = Statistics Estonia database (2010). www.stat.ee (last viewed on 18.01.2010)
38. Stewart, J. (2001). The impact of health status on the duration of unemployment spells and the implications for studies of the impact of unemployment on health status. Journal of Health Economics, 20: 781–796
39. Tarand, K. (2009). Viltu mõõdetud kapital. Tallinn: Eesti Päevaleht 18.10.2009
40. Tiits, M., Kattel, R., Kalvet, T. (2005). Made in Estonia. Tartu/Tallinn: Institute of Baltic Studies, PRAXIS Center for Policy Studies
41. Uibu, J. (2000/2001). Eesti rahvastiku tervis XXI sajandi künnisel. Tallinn: www.arstideliit.ee/pdf/rahvastik.pdf (last viewed on 16.01.2010)
42. UNDP (2009). Human Development Report. Overcoming barriers: Human mobility and development. http://hdr.undp.org/en (last viewed on 16.01.2010)
43. UNDP (2010). Human Development Report. http://hdr.undp.org/en (last viewed on 16.01.2010)
44. World Economic Forum (2009). The Global Competitiveness Report 2008-2009. www.weforum.org/en/initiatives/gcp/Global%20Competitiveness%20Report/index.htm (last viewed on 16.01.2010)
45. Võrk, A., Karu, M. (2009). Peredele suunatud rahalised toetused: mõju ebavõrdsusele, sündimusele ja tööturukäitumisele. Poliitikaanalüüs. PRAXIS Center for Policy Studies, no. 1/2009

CHAPTER 2

Natural environment and the quality of life

2.1. Introduction. About the quality of life and the environment

The quality of life[5] can be equated with the satisfaction of people's material, spiritual and social needs, which is predominantly measured on the basis of social indicators. Meanwhile, quantitative indicators, such as income size or volume of production, fade into the background. Thus, the quality of life contrasts with the pure consumption of material values. In the case of the quality of life, the main emphasis is placed on the availability and quality of various public services (education, health protection, safety and legal protection, environmental protection, the protection of natural resources and cultural objects). In addition to objective living conditions, people's individual characteristics and aspirations are also important with regard to the quality of life.

The environment and natural resources constitute a part of people's quality of life. A clean environment is essential for ensuring people's health and wellbeing – it is impossible to live without air and water. While the effects of environmental indicators (such as outdoor air quality, water quality and inadequate sanitary conditions) on people's health have been studied in more detail, we are less aware of the influence of hazardous chemicals, the stratospheric ozone layer, biological diversity and decreasing soil fertility. Implementing the precautionary principle in environmental and health protection is especially appropriate as the connections between the state of the environment and people's quality of life are complex and difficult to evaluate. Sustainable development is targeted development that ensures the enhancement of people's quality of life and the preservation of biological diversity in harmony with the tolerance capacity of the environment. Sustainable development is aimed at finding a balance between the creation of a satisfactory living environment, the sustainable use of natural resources and economic development. The purpose of this is to ensure that the current and future generations will be able to enjoy the full benefits of living as a community.

The years 2005–2008 can be considered successful for Estonia's population due to thriving consumerism and a sense of wellbeing (see Estonian Human Development Report 2008). However, the increase in consumption also presented new threats to environmental sustainability. As a result of economic prosperity, many people disregarded the consequences of hasty decisions made in the fields of planning and construction without considering their impact on the natural environment. The conditions for bank loans encouraged the construction of residential areas wherever free space existed, resulting in dwellings being built in the middle of fields where they lacked basic utilities and had no access to public transport. Transport schemes that were not subject to sufficient consideration increased motorisation, and thus also the pollution of the environment as well as low quality of life. A further area that requires efficient management by the local government is the organisation of waste handling. While it is necessary for several local governments to cooperate when organising waste management, just like public transport, few positive examples of this process are to be found today. The sorting and recovery of waste as well as the discharge or burning of waste are expensive activities that, on the one hand, require the availability of sufficient resources (waste), and, on the other hand, necessitate the observance of a uniform set of rules by all parties. The differences in waste management prices inside and between local government units result from the inability of local governments to establish common regulations and opportunities for waste handlers. The economic crisis is sobering for both manufacturers and consumers. In addition, the decrease in production and consumption reduces the strain on the environment and improves its condition. It is high time that technological and organisational changes were made in order to prevent deterioration of the state of the environment when the economic situation improves. It is probable that the economic downturn has disenchanted consumers and made it possible for them to re-engage in environmentally friendly practices.

2.2. The environment and public interest

A clean environment is an object of public interest. People need clean air, water and food to survive, but the environment is also necessary for satisfying cultural and spiritual needs. Due to public interest, people must have sufficient

[5] The definitions of the quality of life and sustainable development used in this chapter are based on the definitions provided by SEI Tallinn at http://www.seit.ee/sass/

access to information regarding the environment as well as the right to participate in making decisions concerning the environment and the right to turn to the justice system with environment-related issues. These rights are internationally agreed upon in the Aarhus Convention adopted in 1998 and ratified by Estonia in 2001.

Access to environmental information comprises the obligation of the public authorities to respond to requests for information (providing "passive" access to information) as well as their obligation to collect, update and disseminate environmental information (ensuring "active" access to information). The right of public participation in environmental decisions is most thoroughly regulated in the case of certain specific activities that may have a significant effect on the environment. The list of the activities is provided in Annex 1 to the convention. Furthermore, the state must ensure the participation of the public in the preparation of projects and programmes related to the environment. The state has more freedom with regard to decisions concerning the involvement of the public in the preparation of legislation. Access to justice means that people must have the option of turning to a court or another impartial, independent authority when it comes to areas of dispute concerning the environment. While the right to appeal against decisions is customarily based on the violation of an individual's rights or a legal interest in the matter, the Aarhus Convention also extends the right to appeal to environmental organisations in whose case such a violation of rights or legal interest is presumed. The legal remedies in place and the corresponding process must meet certain minimum requirements: for example, the process must be appropriate and efficient, but also fair, timely and not prohibitively expensive.

The results of analyses (e.g. Poltimäe et al. 2004) have shown that access to information is relatively well established in Estonia. Environmental information includes information regarding the state of the environment as well as information on the environmental effects of development activities. In many cases, the information is accessible online, passively. Interested parties have the opportunity to submit requests for information and the administrative authority that receives a request is obligated to respond to it within five days. Environmental information is collected, analysed and made accessible to the public at both state and local government levels. State authorities also aggregate and analyse environmental information received from enterprises. The Ministry of the Environment administers a sizable environmental register that allows inquiries to be made regarding various domains and aspects related to the environment.

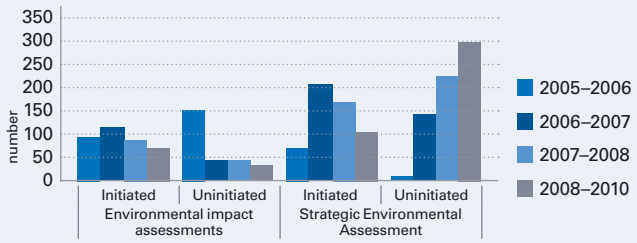
The public mainly participates in making decisions concerning the environment at two levels – compiling development projects and plans initiated at state (ministries and county governments) or local government levels and issuing various activity licences. According to the Environmental Impact Assessment and Environmental Management System Act (KeHJS), the decision maker (the party that initiates the compilation of a development project and plan) and the party that validates the strategic planning document must consider in each case whether the implementation of the document being compiled may have a significant negative environmental impact. KeHJS stipulates the procedure for carrying out the appropriate environmental impact assessments at a strategic level as well as at the project level, and prescribes the inclusion of the pertinent interest groups. It could thus be assumed that the planning procedure and the simultaneous environmental impact assessment provide the public with ample opportunities for participation in the decision making process. The ability of the public to receive timely information on the plans that affect their environment is an important precondition for the previous assumption to be true. In accordance with the Administrative Procedure Act and KeHJS, the decision maker must inform the public of the acceptance and issuing of activity licences and the refusal to approve activity licences, the initiation of development projects and planning as well as of the decision to initiate or not to initiate an environmental impact assessment related thereto. KeHJS lists the authorities and organisations that must be informed in writing about the decision to initiate or not to initiate an environmental impact assessment. The act also contains a list of public locations, such as libraries, schools, stores, and bus stops, where notices must be posted regarding the completion of environmental impact assessment programmes and reports as well as the place and time for the public discussion related to these documents. The decision to initiate or not to initiate an environmental impact assessment can be contested within 30 days of the date of the decision. Based on the legislation and the regulations qualifying the legislation, it could be claimed that Estonia has created all the conditions necessary for the participation of interested parties in making decisions on issues related to the environment. In practice, however, the situation is different. Studies indicate that public participation in decision making procedures related to the environment is less well established than access to environmental information.

In Estonia, approximately one thousand applications for the initiation of a development project or plan or for the issuing of an activity licence are reviewed annually. The applications can be classified as unpromising, in which case the decision maker can reject the application without initiating a procedure, or promising, in which case the decision maker is obligated to assess whether the planned activity will have a significant impact on the environment. The number of environmental impact assessments initiated on an annual basis has amounted to 150–160. For example, during the period 2001–2004/2005 (Peterson, Uustal 2006), 150 environmental impact assessments were initiated per year, on average, and the corresponding figure for the period 2005–2008 added up to 160[6]. During the past four years, the number of environmental impact assessments initiated annually may have totalled 300 (e.g. 2006–2007) (see Figure 2.2.1).

The figure indicates that the number of environmental impact assessments left uninitiated has increased constantly, especially in the case of development projects and plans, where the number of initiated environmental impact assessments is approximately three times lower than the number of assessments left uninitiated. On the one hand, this could be explained by the relatively large percentage of detailed plans among the total number of plans and development projects for which environmental impact assessments have been initiated. It is possible that in these cases the decision maker has established that the environmental impact assessments conducted during the previous stages of planning (e.g. the making of a com-

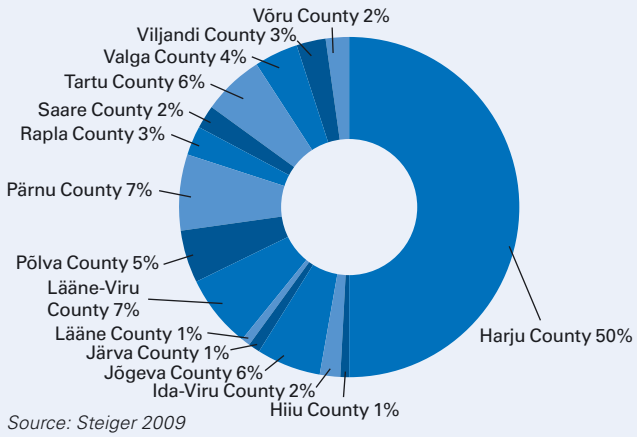
[6] Data provided by the Environment Department

Figure 2.2.1. The number of environmental impact assessments between 2005 and 2009 (four full years as of the passing of KeHJS on 3 April 2005)



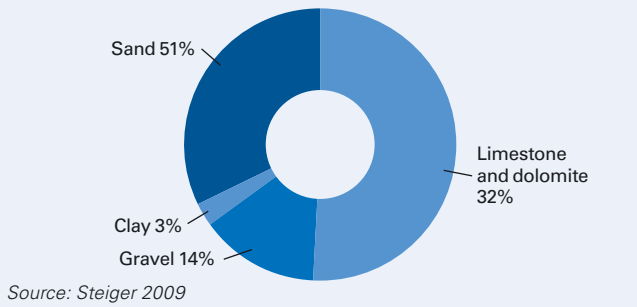
Source: Peterson, Kose, Uustal 2010

Figure 2.2.2. The extraction of mineral resources used in construction by counties in 2004–2008



Source: Steiger 2009

Figure 2.2.3. The extraction of mineral resources used in construction in 2004–2008 by resource type



Source: Steiger 2009

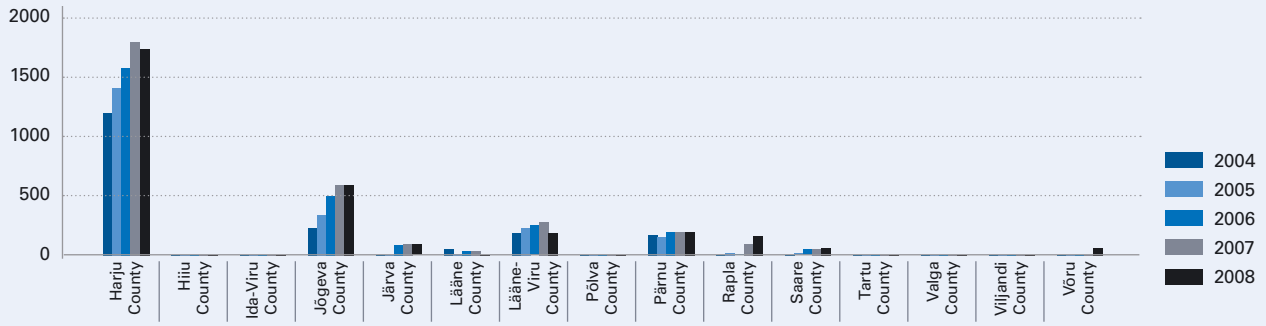
prehensive plan) have been sufficient and that the nature and extent of the new activity does not alter or exceed the environmental impact already taken into account. On the other hand, the comparatively large number of environmental impact assessments left uninitiated can reflect the decision maker's wish to avoid the prolonged proceedings and additional costs that are inevitably involved in the assessment of a project's environmental impact.

In 2001–2005, Estonian courts heard 27 cases regarding complaints connected to environmental impact assessments (Kuldna, Uustal 2006). The courts of first instance heard 14 complaints, the courts of appeal heard 10 complaints, and the Supreme Court heard 3 appeals in cassation. The complaints were based on the assessment of detailed plans (4 cases); the legality of the environmental impact assessment and activity licence (2 cases); the lack of environmental impact assessment in the case of the extraction of mineral resources and earth materials (3 cases); the granting of design criteria or a building permit without an environmental memorandum or the initiation of an environmental impact assessment (2 cases); the failure to assess the environmental impact resulting from the planning (1 case); and the legality of the refusal to suspend or declare invalid an environmental impact assessment license (1 case). The appellants included three environmental organisations, two state authorities, two local governments and eight private persons. The problems found in the environmental impact assessment procedure can be divided into three categories: firstly, issues related to the procedure of environmental impact assessment; secondly, issues related to the quality of environmental impact assessment; and thirdly, issues related to the consideration of environmental impact assessment results in the course of the decision making process.

The problems related to the procedure of environmental impact assessment involved a) supplying interested parties with the relevant information and b) the deadlines for making decisions public. Analyses of complaints brought into court as well as the procedure for environmental impact assessment (Keerberg, Peterson 2006) have demonstrated that interested parties were not always informed in a timely fashion of the projects that affected them and were therefore unable to submit their proposals, objections and questions. Although the publication of a notice online (e.g. on the website of the rural municipality or city, on the Official Notices website, etc.) makes the information available to people who express interest in such things, it does not ensure the availability of the information to individuals who do not visit the appropriate websites and databases on a daily basis. Efforts should be made to find a way to simultaneously ensure the fulfilment of the goals of data protection and efficiently supply people with information and thus include them in the decision making process. The other problem related to the procedure is connected to the reasoning provided for environmental impact assessment. In most cases, disputes have developed with regard to the motives for foregoing the assessment of environmental impact. According to law, the decision maker must be convinced that the planned activity does not have a negative impact on the environment. Due to this, the decision maker must weigh the environmental impact of the activity and any other activities occurring in conjunction with the planned activity. A recent study revealed that the percentage of such "discretionary decisions" has increased from 10% during the period between 2001 and 2005 to 71% in 2005–2009. This has significantly increased the responsibility of the decision makers, since the discretionary decision must comprise the relevant argumentation which is made public and can be contested (ibid.).

The quality of environmental impact assessment is largely dependent on the quality of work of the responsible experts. Cases where local inhabitants are dissatisfied with the work of an expert who has not given enough consideration to certain aspects of environmental impact are not rare. Criticism has been voiced at situations where an environmental impact assessment expert is working for the developer rather than in the public interest. In terms of the quality of environmental impact assessment, it has frequently been highlighted that according to the system in place, the developer orders the assessment from the

Figure 2.2.4. The 2004–2008 extraction volumes of limestone and dolomite used for construction purposes by counties, thousands of m^3



Source: Steiger 2009

expert, and as a result, the independence of the assessment results (conclusions) is not guaranteed. However, the independence of the expert is crucial from the standpoint of ensuring the reliability of the environmental impact assessment. An expert's performance quality is improved by active public participation in the process, which serves to increase the reliability of the expert and his/her work.

Taking the results of an environmental impact assessment into account when making decisions concerning a development project, plan or building guarantees a better end result. Just as deliberating the need for an environmental impact assessment, considering the results of an assessment involves weighing the public good resulting from the activity in question against the environmental damage caused by the activity. For example, in the case of Natura 2000, the Europe-wide network of nature protection areas, legislation stipulates that damage to nature is only allowable in the case of urgent and predominant socio-economic public need. Causing damage to the nature protection areas is illegal under any other circumstances.

Community and the neighbourhood

The fact that people care deeply about their home and nature has been proven by many cases related to the environmental impact of development activities, which have also received media attention. An increased need for mineral resources used in construction emerged (limestone, gravel, sand) during the peak of the economic boom in 2007–2008 when the construction industry was thriving. Favourable export conditions also made it tempting to increase resource extraction volumes. Developers often applied for prospecting and mineral extraction permits at several mineral deposits and extracting permit areas at once. The pressure was the most intense in Harju County, the source of nearly half of all mineral resources used in construction in 2004–2008 (see Figure 2.2.2).

Sand constituted the largest share – nearly half – of the extracted minerals, followed by limestone and dolomite (approximately one third of the total volume). The extraction of gravel and clay made up a smaller percentage of the mining volume, respectively accounting for 14% and 3% of the total (see Figure 2.2.3).

On examination of the dynamics of the extraction of mineral resources used in construction, it can be observed that mining volumes have constantly been increasing in most counties. For example, the extraction of limestone and dolomite used for construction purposes has increased markedly in Harju County, Jõgeva County and Rapla County (see Figure 2.2.4).

Thus it is not surprising that resistance to the opening of new quarries has been especially strong in Harju County (e.g. with regard to the limestone quarries in Ruu, Loo, Jägala, Tagadi, Tammiku and elsewhere). People are well aware of the fact that limestone is extracted through blasting in open quarries and that lime dust as well as the noise and dust created by the operation of sieving and crushing machinery and transportation travel for several kilometres. The extraction of mineral resources causes the level of groundwater to decline and many drinking water wells to run dry. In addition to the direct disturbance experienced by the local population due to mineral resource extraction, concern has been expressed at the state's indifferent attitude towards ensuring that the developers take better care of their depleted quarries. The current bad practice of neglecting depleted quarries encourages local people to become increasingly opposed to the expansion of existing quarries and the opening of new ones. Local governments have sporadically tried to protect the environment valued by their local populations. Some local governments have used the option, provided in the Nature Conservation Act, of forming local protected areas. For example, in 2007, Kose Rural Municipality formed the Rahkvälja landscape protection area and Kuusalu Rural Municipality formed the Rehatse landscape protection area in order to prevent mineral resource miners from gaining access to areas of natural value. However, a recent Supreme Court ruling proved to be a setback for the proponents of such measures. The Constitutional Review Chamber of the Supreme Court made a ruling on 30 September 2009[7] regarding the request by the Koigi Rural Municipality (Järva County) to declare unconstitutional the provisions of the Earth's Crust Act that make it possible to grant geological investigation and exploration permits or mineral resource extraction permits upon approval by the Government of the Republic even if the local government opposes the granting of such permits. The Supreme Court ruled that the above-mentioned provisions of the Earth's Crust Act are constitutional and denied the request submitted by the Koigi Rural Municipality.

[7] www.riigikohus.ee/?id=11&tekst=RK/3-4-1-9-09

In situations where the private interests of the developer override the public interest of the local population, the decision maker should make the reasons for such preferences publicly known and should implement the appropriate means of redress. In order to prevent conflicts between developers and local inhabitants, it is also important to adhere to the hierarchy of decisions. In many instances, the conflicts between private and public interests have stemmed from the lack of a general concept or comprehensive plan, due to which the different interests have not been discussed with the parties involved during the process of compiling or updating a development project or comprehensive plan. Even at the beginning of 2008, 40% of local governments still lacked a valid comprehensive plan (National Audit Office 2008). This demonstrates that construction activities were primarily governed by detailed plans, rather than a general development concept encompassing the whole local government unit.

The extraction of earth deposits, including peat, a non-renewable resource, will be an important issue for years to come, although studies (Steiger 2009) show that some mineral resources will be exhausted in certain counties in less than a decade. Taking into account the current extraction volume, the sand and construction gravel mined in Rapla County will run out in about five years, while the construction gravel reserves in Harju County will be depleted in 11 years and the reserves of limestone and dolomite used in construction will run out in 16 years. It is likely that the pressure on natural resources and thereby also the people residing near mineral deposits will continue to increase. The Ministry of the Environment is preparing a development plan on the exploitation of natural minerals used in building materials until the year 2020. The plan should specify clear principles on how and in what quantities the extraction of minerals should be planned in order to simultaneously ensure both economic development and the preservation of the environment. The principles of sustainable development must be followed especially carefully in the case of the use of non-renewable resources since only by adhering to the principles can we ensure that future generations will have the opportunity to live in an environment comparable to the one we enjoy today.

References

1. Keerberg, L., Peterson, K. (2006). Keskkonnamõju hindamise menetlusprotsessi uuring. Ülevaade keskkonnamõju hindamise praktikast Eestis. Estonian Institute for Sustainable Development publication No 9, Tallinn
2. Kuldna, K., Uustal, M. (2006). Keskkonnamõju hindamine Euroopa Kohtu ja Eesti kohtute praktikas. Ülevaade keskkonnamõju hindamise praktikast Eestis. Estonian Institute for Sustainable Development publication No 9, Tallinn
3. Peterson, K., Kose, M., Uustal, M. (2009). Screening of plans and projects likely to have impacts on Natura 2000 sites. Journal of Environmental Assessment and Management (in print)
4. Peterson, K., Uustal, M. (2006). Keskkonnamõju hindamine Eestis aastatel 2001–2004/2005. Ülevaade keskkonnamõju hindamise praktikast Eestis. Estonian Institute for Sustainable Development publication No 9, Tallinn
5. Poltimäe, H., Kuldna, P., Merisaar, M., Kolk, T. (2004). Keskkonnainfo kättesaadavusest ja otsustamises osalemise võimalustest Eestis. Estonian Institute for Sustainable Development publication No 6, Tallinn
6. Riigikontroll (2008). Ülevaade valdade ja linnade üldplaneeringutest ja nende puudumise põhjustest, audit report, submitted to the Riigikogu on 19 June 2008
7. Steiger (2009). Looduslike ehitusmaterjalide kasutamise riikliku arenguakava 2010–2020 koostamiseks, study, OÜ Inseneribüroo Steiger, Tallinn

2.3. The value of green spaces in an urban environment

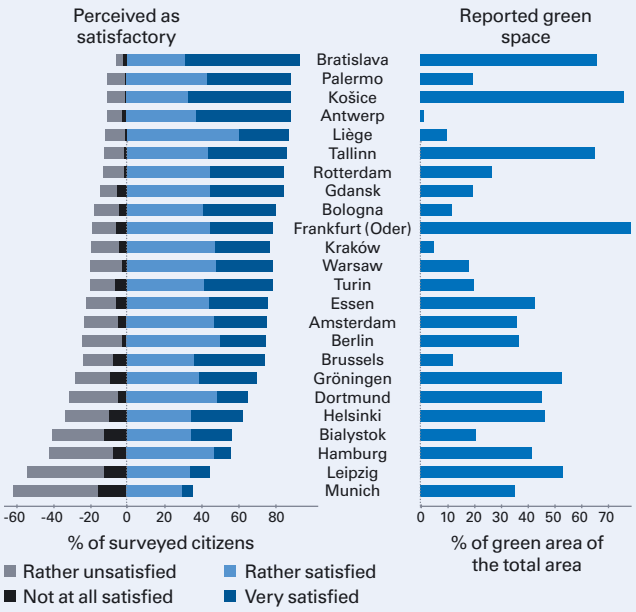
Nature has both intrinsic value and value attributed to it by people. The latter develops through various attitudes and values, the ways in which people regard their surroundings and the significance attributed to nature. The value attributed to nature by people can be monetary (utilitarian) or non-monetary (non-utilitarian). Monetary value is shaped in the marketplace where natural resources (forest, mineral resources, etc.) are traded. Non-monetary value develops indirectly, mainly through people perceiving and valuing nature at an intellectual level, without attaching a price tag to it. A certain object of natural value (a place, rock, tree, forest, landscape, etc.) may signify different things to different people. In many cases, however, attempts have been made to assess non-monetary value by indirect means. The monetary value or price of some objects of natural value may thus be expressed through people's preferences, which do have a monetary dimension. For example, real estate located near the sea or in nature reserves and national parks is more expensive than properties that are located inland or outside of protected areas. The sum of money required to restore or replace a damaged object of natural value (e.g. the habitat of a protected species, a waterfall, a cliff, a wetland, etc.) can also indirectly be considered the price of that object. It is clear that the technology and science available to man does not allow us to restore or create species that have developed over millions of years or the nutritional mechanisms that existed between them. Despite this, attempts have been made to assess, even approximately, the monetary value of naturally valuable phenomena. In April 2009, public attention was drawn to the announcement that researchers from Tallinn University of Technology and Tallinn University had calculated the price of Jägala Waterfall to be 157 million EEK (Jaagant 2009). The researchers interviewed approximately one thousand people who were asked to specify the sum of money they would be willing to pay annually in order to have the natural water volume in Jägala River pre-

served. The survey was motivated by the restoration of the Jägala hydroelectric plant, which was to cause a decrease in the volume of water in the waterfall. According to the article, the value of Jägala Waterfall according to the respondents was 35 times greater than the cost of the hydroelectric plant, which was estimated at 4.5 million EEK. At the same time, the total value of a naturally valuable phenomenon is not limited to the sum of money people would be willing to pay for its preservation. In the case of the waterfall, for example, we do not know the value it will hold for future generations.

Since nearly two thirds of Europe's population lives in cities and urban settlements and the percentage of urban dwellers in Europe is predicted to rise to 80% by 2020 (EEA Report 5/2009), the protection of nature in cities has steadily increased in importance over the past decade. Humans, like other species, need a natural environment to live in. Even in cities, areas are necessary for people to move around in fresh air in order to relax, exercise, practise other hobbies (bird watching, kite flying, etc.) or walk their pets. Opportunities for engaging in such activities are provided by green spaces (parks, green zones, protected areas, wetlands, etc.) which have not been built on and whose size and tolerance for human use have been taken into account during the planning stages of housing construction. It is difficult to overestimate the significance of green spaces in an urban environment, since they are vital for ensuring people's health and quality of life. Green spaces allow people to come into contact with nature, help improve air quality and relieve the stress caused by the heightened background heat of the city. Since green spaces offer opportunities for engaging in sports and relaxation activities, they inspire people to be more active and have a positive effect on mental health. The study ordered by the European Commission (EEA Report 5/2009) on the role of green spaces in people's lives demonstrated that, in addition to the area of green spaces in European cities, their role is affected by another decisive factor, namely quality (see Figure 2.3.1). For example, the inhabitants of Helsinki and Hamburg were less satisfied with the green spaces in their cities than the respondents in Amsterdam and Berlin, although the percentage of the urban area covered by green spaces was similar in all of the cities, constituting approximately 40% of the total in each case. The fact that the quality of green space is more important than its quantity is also indicated by the survey results for Brussels, which show that the inhabitants of the city were satisfied with the green space available to them despite the fact that it makes up only about 10% of the territory of the city. Of the inhabitants surveyed in Tallinn, approximately 80% were rather satisfied or very satisfied with the city's green space. The area of green space in Tallinn is relatively large, amounting to 60% of the city's territory. At the same time, human pressures on green space have increased, resulting in the diminishing size of green sites and the loss of green belts that connect them. Fragmented green space without green belts is not sustainable, since the species that in habit it need access to different areas during different stages of their lives and require suitable conditions for feeding, reproducing and raising their offspring.

In Estonia, the network of green spaces is thinnest near urban areas (see Figure 2.3.2). For example, Tallinn has been expanding towards its outskirts since 2000 and the new residential areas have swallowed former fields, forests and gardening associations as well as coastal areas that had been left untouched in earlier years due to the presence of

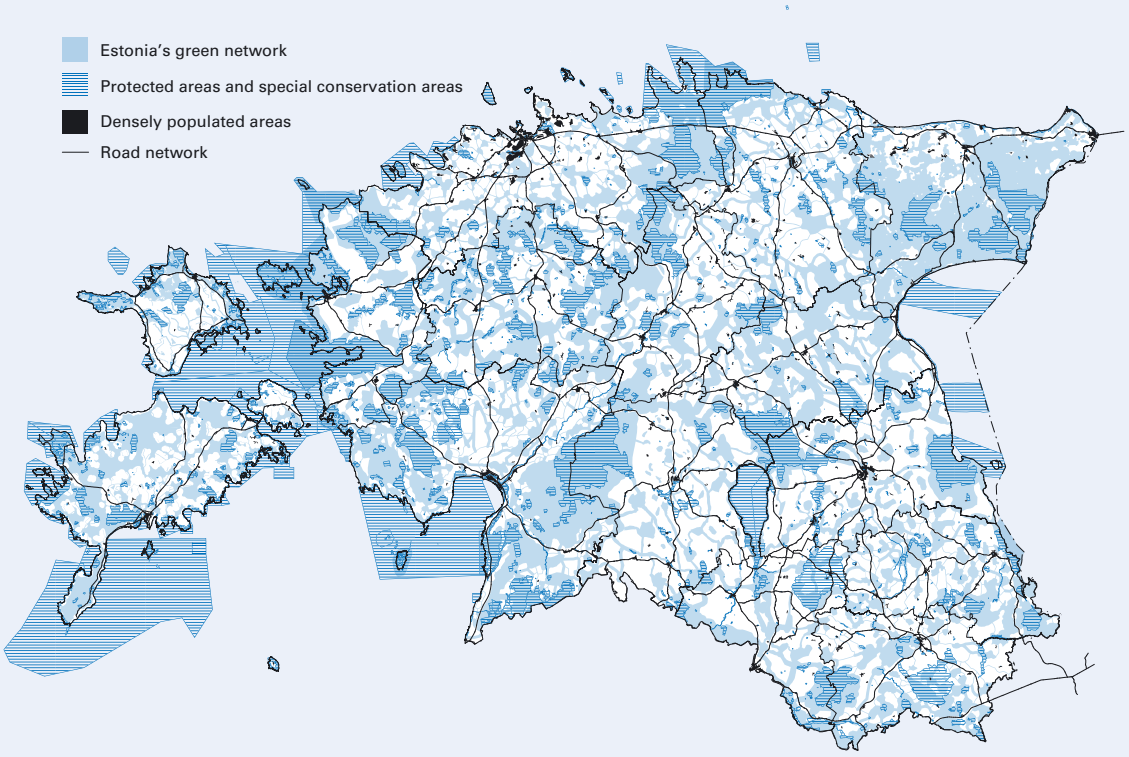
Figure 2.3.1. Differences between people's attitudes towards the sufficiency of green space and actual green space in the cities



Source: EEA Report 5/2009

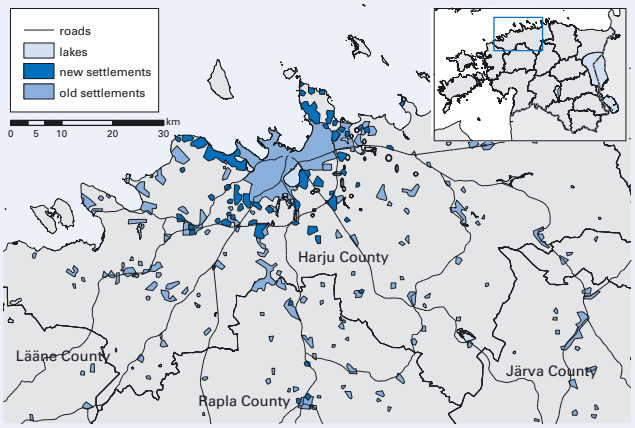
the Soviet military and border guard. According to Tammaru et al. (2009), 5600 new households and 17,200 new inhabitants appeared between 1991 and 2005 in Tallinn's neighbouring rural municipalities. The construction of housing that had been growing until 2005 further intensified in 2006–2007 (see Figure 2.3.3). A notable increase in the population has been observed in some rural municipalities bordering Tallinn, such as Viimsi, Harju and Kiili rural municipalities, where the number of inhabitants increased 11%, 8% and 7%, respectively, between 2001 and 2009. Due to the urban sprawl, the area of green space has also decreased near Tartu (see Figure 2.3.4). Research (Roose, Kull 2008) shows that new suburban settlements were primarily built in former fields (45%) and natural grasslands (16%) and the population density of existing low density areas increased in the rest of the cases. In 1999–2002, all counties prepared a thematic plan for a green network, stipulating the conditions for preserving green space connections. Regrettably, no legislation exists to ensure the preservation and interconnection of the areas belonging to the green network. The county plans are enacted as administrative legislation which can be amended upon request of the local governments. Thus, the preservation of green spaces and their connectedness depends on the will of local governments. National protection areas are protected by law. However, there are four rural municipalities in Estonia that do not have national protection areas (see Figure 2.3.5). This means that in these municipalities the preservation of green space falls under the purview of local governments. Several local governments have prepared thematic plans for areas of cultural and environmental value as well as green spaces. Nevertheless, like any plan, these thematic plans can be changed. The fact that green space is receding in the face of growing residential areas is confirmed by the afore-mentioned decrease in green space on the outskirts of the larger cities.

Figure 2.3.2. Estonia's green network along with the country's protected areas and special conservation areas, settlements and main roads



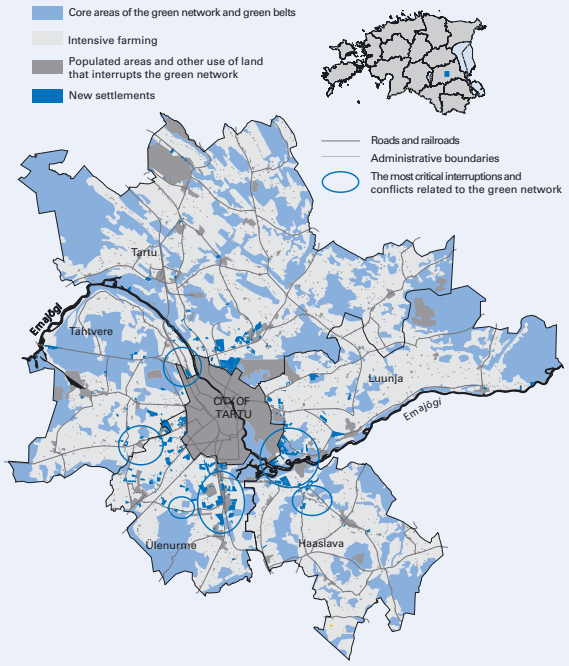
Source: Eesti looduse kaitse aastal 2007. Eesti looduse mitmekesisus. Estonian Environment Information Centre, Tallinn 2008

Figure 2.3.3. New settlements near Tallinn in 1991–2005



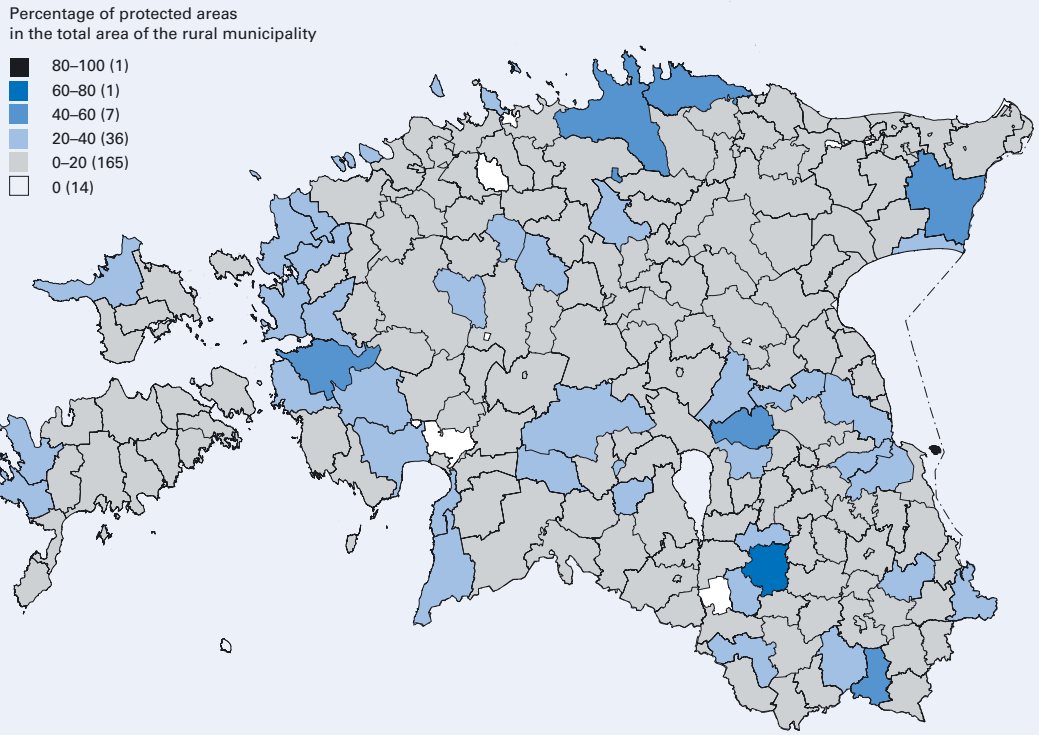
Source: Urban Sprawl. Estonian Environmental Review 2009. Estonian Environment Information Centre, Tallinn 2009

Figure 2.3.4. New settlements and conflict areas near Tartu



Source: Urban Sprawl. Estonian Environmental Review 2009. Estonian Environment Information Centre, Tallinn 2009. Author: Ain Kull, University of Tartu

Figure 2.3.5. Protected areas in the rural municipalities



Source: Eesti looduse kaitse aastal 2007. Eesti looduse mitmekesisus. Estonian Environment Informations Centre, Tallinn 2008

References

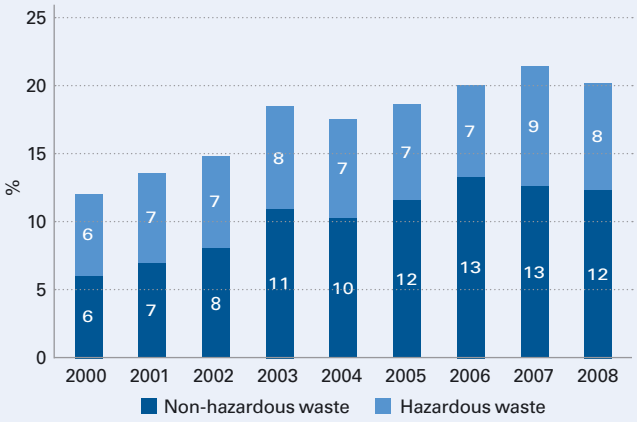
1. EEA Report (2009). Ensuring quality of life in Europe's cities and towns. Tackling the environmental challenges driven by European and global change, No 5
2. Jaagant, U. (2009). Uuring: ülikoolid arvutasid Jägala joa väärtuseks 157 miljonit krooni, Eesti Pärvaleht, 16 April 2009
3. Roose, A., Kull, A. (2008). Segregated suburban landscapes: Transformations on the fringe of Tartu. Geographical Studies 10. Roosaare, J., Mander, Ü. (eds). Publicationes Instituti Geographici Universitatis Tartuensis. Vol 107, pp. 68–87
4. Tammaru, T., Leetmaa, K., Silm, A., Ahas, R. (2009). Temporal and Spatial Dynamics of the New Residential Areas around Tallinn. European Planning Studies. Vol 17, No 3, pp. 423–439

2.4. Waste

In globalised consumer societies, problems related to waste have become one of the central environmental concerns. In 2008, approximately 20 million tons of waste was created in Estonia, most of which (12.3 million tons) was non-hazardous waste and the remainder (7.7 million tons) hazardous waste. Approximately 15 tons of waste per person is created in Estonia annually, and hazardous waste makes up 38% of the total volume. Economic growth is reflected directly in the increased volume of waste (EEIC, 2008) (see Figure 2.4.1). According to these figures, Estonia is one of the greatest generators of waste in the world. In comparison, the average amount of waste generated per person in the European Union is 4 tons per year (of which only about 3% is hazardous waste) (EEA 2009).

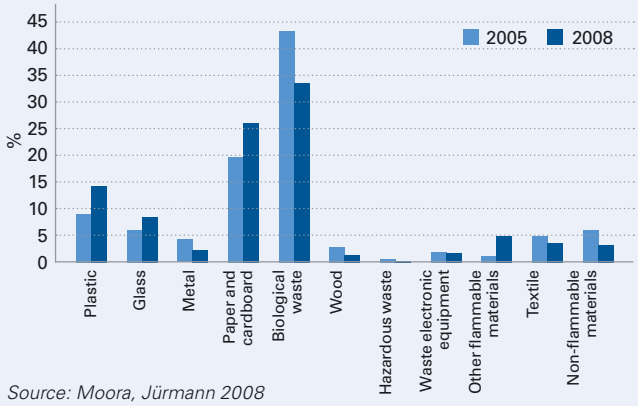
The reason for a small country like Estonia being one of the world's foremost producers of waste is related to our oil shale industry. The majority (73%) of our waste originates from the so-called oil shale complex (the mining of oil shale, the generation of electricity and the produc-

Figure 2.4.1. Waste generation in Estonia between 2000 and 2008 (millions of tons)



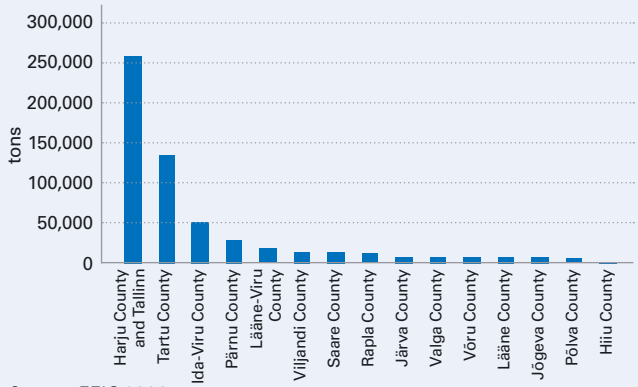
Source: EEIC 2008

Figure 2.4.2. Changes in the composition of municipal waste, 2005–2008



Source: Moora, Jürmann 2008

Figure 2.4.3. The production of municipal waste by counties in 2008



Source: EEIC 2008

tion of shale oil) and a large share of this waste is hazardous, seriously impacting the natural environment as well as the quality of the living environment. The next largest producers of waste include the construction industry and timber industry, which account for 7% and 6% of all waste, respectively. Municipal waste, which has recently been the subject of much discussion, only constitutes about 2.5% of the total volume of waste generated. Due to the shortcomings of waste reporting, the official data on the quantities of municipal waste is somewhat overestimated. According to estimates, approximately 540,000 tons of municipal waste was generated in 2008, which amounts to 400 kilograms per person on an annual basis (Moora 2008). This is less than the EU average (516 kg) (EEA 2009), but waste generation in Estonia still remains high. At the same time, it must be noted that compared to the other new EU countries, Estonia has been quite successful in terms of organising the recovery of waste, including municipal waste. The standard of waste sorting and recovery varies greatly between different regions, however, and there is plenty of room for improvement.

Waste reflects increased consumption

Economic growth is commonly expressed in terms of the GDP, but as has been previously mentioned, increased consumption is also one of the signs of economic growth. The dramatic rise in consumption in Estonia during the years of economic growth was, in turn, reflected by the increase in the volume of waste generated. In 2000–2007, the average increase in waste generation reached 4% (EEIC 2008). During the same period, the generation of municipal waste experienced an especially notable increase, rising by nearly a quarter. Changes in consumer habits are also reflected in the composition of municipal waste. In addition, it is significant that the products we use on a daily basis are becoming increasingly complex and the combinations of materials used in these products contain more and more dangerous substances. This also increases the impact of waste on the environment and people's health and prevents it from being conditioned effectively. A comparison of the composition of municipal waste today and the data available for 2005 reveals significant changes. Due to the fast economic growth, the packaging waste (primarily plastic, paper and cardboard, and glass) content of general municipal waste has increased drastically from 26% to 37% (Moora, Jürmann 2008) (see Figure 2.4.2).

The direct connection between the production of waste and economic growth (including the increase in consumption) is also illustrated by the fact that in connection with the economic downturn the increasing volume of waste generated in recent years began falling in 2008.

Regional characteristics of waste production

The regional differences in waste production are a result of natural, economic and social conditions and the size of the population in a given region. Due to the waste generated by extracting and using oil shale, Ida-Viru County differs from the other counties the most. The depositing of semi-coke, which is created in the course of the production of shale oil, has caused large-scale pollution in both the immediate neighbourhood of the landfills as well as the surrounding areas. The pollution of surface water and groundwater is especially extensive in old landfills where the semi-coke was washed off with industrial waste water. Although the environmental impact of the new semi-coke landfills that meet the current requirements is smaller, it cannot be considered non-existent. Large amounts of water are used in land filling the oil shale dust created by the production of electricity, which causes the water to become highly alkaline. The constant dissolution of organic and mineral substances in the oil shale dust also has an impact on the environment. Much of Estonia's population and many of the country's businesses are concentrated in the largest cities (Tallinn, Tartu, Narva and Kohtla-Järve, Pärnu) and the surrounding rural municipalities. The majority of other types of waste, including municipal waste, are produced in these regions. Approximately 50% of the municipal waste generated in Estonia originates from Tallinn and Harju County (see Figure 2.4.3) and the percentage of municipal waste produced in this region is expected to continue to grow.

All landfill sites for non-hazardous waste that did not correspond to environmental requirements were closed as of 16 July 2009. Of the 350 landfill sites that were sources of environmental risk and pollution, five landfill sites that meet the environmental norms remain in operation today. The era when the waste that had been generated could

be taken to a landfill site near one's home almost free of charge has ended.

The closing of landfill sites has the greatest impact on regions that no longer have local landfill sites, such as South-Eastern Estonia and the islands of Western Estonia. At the same time it must be noted that local governments in South-Eastern Estonia and many other areas have not managed to provide the population with alternative options for collecting municipal waste (e.g. building waste stations and promoting the sorting of waste). This has resulted in an unequal situation where people living in many local government units, especially rural areas and smaller settlements, lack opportunities or have very limited opportunities for conveniently delivering their waste for handling at a reasonable price. Due to this, an increasing amount of waste is dumped in unauthorised locations. This has become an especially serious problem in rural municipalities that surround larger cities – they have to bear the expenses of cleaning up dozens of tons of illegally dumped waste each year. The inadequacy of the waste collection system is also underlined by the results of a 2007 survey by Turu-uuringute AS, which revealed that 10% of the population regularly burns the waste produced in their household. Handling waste at home (burning and burying it) causes significant damage to the environment as well as people's health.

Waste handling bills depend on the local governments' efficiency and readiness for cooperation

The organisation of waste handling is largely dependent on the actions of the local governments as well as their competence and the resources they have available for fulfilling the obligations provided by law. According to the Waste Act, all local government units with at least 1500 inhabitants are required to implement organised waste transport as of January 2005. The aim of organised waste transport is to select a single waste transporter for a region by way of competition in order to connect all producers of municipal waste to the joint waste handling system.

The inspection of the waste handling situation organised by the National Audit Office in 2008 revealed that many local governments are not fulfilling their direct legal obligations with regard to the organisation of waste handling. Approximately 43% of the local governments had not fulfilled their obligation to implement organised waste transport by the time of the inspection and about 30% had failed to prepare a waste management plan.

Figure 2.4.4. Average price for emptying a waste container (140 l) (first half of 2009)

Source: Ministry of the Environment 2008

Over the last year and a half, the cost of the waste transport service has increased by about 30% in local governments that have not selected a single waste transporter by way of competition and are thus susceptible to open market conditions. The survey of waste transport prices conducted by the Ministry of the Environment at the beginning of 2009 indicates that waste transport costs have remained the same or have even decreased in regions with organised waste transport (see Figure 2.4.4). There are many regions where the price of the waste transport service only amounts to one third of the open market rate due to the implementation of organised waste transport. As one of the most drastic examples of this trend, a study conducted in 2009 by Eesti Õigusbüroo revealed that the waste transport rates in Viljandi and Pärnu differed 4.5 times. The organisation of waste transport had been implemented in Viljandi, while Pärnu had failed to do so. The reason for the high price of waste transport in Pärnu is not the distance of the landfill site, since the site is located just outside the city.

Taking into account the small size of the local governments as well as their varying degrees of efficiency, their cooperation in terms of organising waste handling is unavoidable. Although this kind of cooperation has justified itself in other European countries, a large share of Estonia's local governments have not yet deemed it necessary.

References

1. EEA = European Environmental Agency (2009). Waste and material resources. http://www.eea.europa.eu/themes/waste
2. EEIC = Estonian Environment Information Centre (2008). Data from the State Register of Waste
3. Moora, H. (2008). Keskkonnakaitse majandushoobade arendamine jäätmemajanduses. Study report. SEI-Tallinn
4. Moora, H., Jürmann, P. (2008). Eestis tekkinud olmejäätmete koostise ja koguste analüüs. Study report. SEI-Tallinn

2.5. The role of environmental taxes in decreasing environmental impact

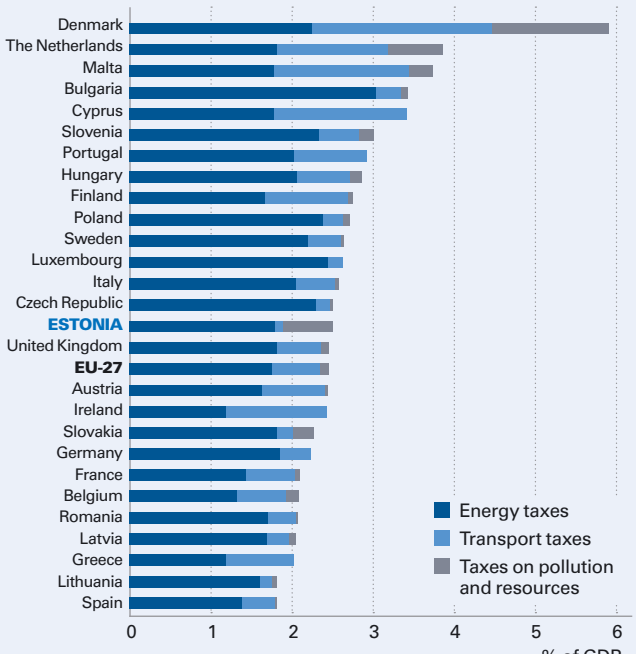
The objective of environmental taxes is to reduce the negative human impact on the environment (through consumption and production). Environmental taxes motivate both manufacturers and consumers to look towards new technologies and methodical solutions in order to reduce resource use and pollution, thus increasing the efficiency and competitiveness of the economy as a whole. At the same time, environmental taxes, just as all other taxes, must proceed from the principle of justice, meaning that the poor should not bear a heavier tax burden than the rich. The state has many different ways of ensuring environmental quality: norms and standards provided by legislation as well as legal requirements with regard to informing the public and including them in the local planning process; several economic instruments, such as environmental taxes, tradable emission permits, state subsidies; the obligation to compensate for environmental damage; the so-called green public procurements organised by the state for purchasing services and products; voluntary measures, such as voluntary agreements with companies regarding the fulfilment of environmental norms and modernisation of technologies, the implementation of environmental management systems in companies and organisations; informing citizens and companies and providing free access to environmental information.

Table 2.5.1. Environmental tax revenues by tax type in 2007

Type of environmental tax	Thousands of EEK	%
Energy taxes	3,676,033	70
Resource taxes	694,053	13
Pollution taxes	740,414	14
Transport taxes	171,504	3
Total	5,282,004	100

Source: Grüner et al. 2009

Figure 2.5.1. The share of environmental taxes in the GDPs of EU Member States, 2007



Source: data on Estonia – Statistics Estonia's survey Environmental Taxes, *data on other countries – Eurostat*

Various resource and pollution charges have been implemented in Estonia already since the beginning of the 1990s. The concept of environmental taxes is much broader, however, since according to Eurostat (2001), an environmental tax is "a tax whose tax base is a physical unit (or a proxy of it) of something that has a proven, specific negative impact on the environment". Environmental taxes are not defined solely in terms of their objective – the basis for establishing the tax and its effect on the environment are also important. Eurostat considers all environment-related taxes, charges, excise duties and state fees to be environmental taxes. Often, environmental taxes are also linked to consumption taxes, although not all consumption taxes are environmental taxes, as appears evident when we examine, for example, the value added tax.

Environmental taxes are grouped into four categories (Eurostat 2001). The environmental taxes and charges levied in Estonia are named after each category:

- pollution taxes — air pollution charge, water pollution charge, waste disposal charge, packaging excise duty;
- resource taxes — mineral resources extraction charge, water abstraction charge, fishing charge, forest stand cutting charge, hunting charge;
- energy taxes — fuel excise duty, excise duty on electricity;
- transport taxes — heavy goods vehicle tax, state fees on registration of motor vehicles, aircraft and vessels.

Estonia's first integrated environmental tax database, compiled as a result of the Statistics Estonia survey *Environmental Taxes*, provides an overview of the size of the state's environmental tax revenues by tax type and the distribution of environmental taxes (see Table 2.5.1) (Statistics Estonia 2009).

Estonia's environmental tax structure is similar to those of other European Union countries (see Figure 2.5.1) in terms of the large relative importance of energy taxes (which constitute more than 70% of all environmental taxes). However, Estonia differs from other EU countries in its percentage of transport taxes, which is the lowest in Europe. This is due to the fact that Estonia has not implemented an annual tax on vehicles, a road tax or a congestion charge, which are common elsewhere in the EU. On average, transport taxes were the second largest tax type in the EU after energy taxes, accounting for 24% of all environmental taxes. In Estonia, transport taxes made up just 3% of the total environmental tax revenue. Unlike the EU average, Estonia's second most important environmen-

tal tax type comprises resource use and pollution charges (Grüner et al. 2009).

A part of the environmental tax revenue is allocated to the local governments. Of the 5.9 billion EEK collected as environmental tax revenues in 2007, local governments received 267 million EEK (4.5%). Local governments received 166 million EEK from mineral resource extraction charges, 68 million EEK from the charges for the special use of water, and 34 million EEK from the pollution charges collected from waste disposal.

Environmental taxes constitute about 7% of the state budget revenue. The largest sources of revenue are social tax and value added tax, followed by non-tax revenues and income tax. Between 2005 and 2007, the environmental tax revenue in the state budget grew from 4.1 billion EEK to 5.6 billion EEK. At the same time, the percentage of environmental taxes in the total revenue dropped from 7.3% to 6.7%. Only excise duties on tobacco and alcohol made up a smaller share of the total revenue than environmental taxes. (Grüner et al. 2009).

According to the data made available by Eurostat, the collection of environmental taxes accounted for 2.3% of Estonia's gross domestic product (GDP) in 2007. The average indicator for EU countries in 2007 in terms of environmental taxes as a percentage of GDP was 2.5%. The relative importance of environmental taxes was significantly greater in Denmark, where revenue from this source made up 5.9% of the country's GDP. Lithuania and Spain exhibited the lowest rates, with environmental taxes constituting only 1.8% of their GDPs. (Eurostat 2009)

The Statistics Estonia study also focused on the distribution of environmental taxes by economic sector. When we approach the issue from the standpoint of who is paying the tax, the greatest sources of environmental tax revenue are fuel importers who have to pay the fuel excise duty while fuels are imported. Bigger payers also include power generators (pollution charges) and oil shale extractors (resource extraction charge). Other sources of environmental tax revenue include industries providing waste management and water purification services. The importance of households as direct payers of environmental taxes is small.

In order to gain a better overview of the distribution of environmental taxes from the standpoint of the consumers, the Statistics Estonia study redistributed the fuel excise duty, soil and water pollution charges and water abstraction charges between economic sectors that consume the services and products of the afore-mentioned industry sectors (electricity, heating, water, waste management, etc.). As a result of the redistribution, households become the largest environmental tax end payer, followed by road transport, construction, wholesale and retail trade, etc. For households, environmental taxes are mainly a form of indirect taxation, since they are paid as part of the prices of purchased products and services.

In addition to the positive impact of environmental taxes (increasing production efficiency, supporting technological innovation, shaping more environment-friendly behaviour and consumption practices), they may also have negative effects, the most common of which is their restrictive influence on competitiveness and their potentially inequality-increasing (regressive) effect on households. The following analysis will focus on the impact of environmental taxes on Estonia's households, using the example of the fuel excise duty.

Table 2.5.2. Distribution of environmental taxes by tax payer, 2007

	%
Areas of activity related to transportation; the activities of travel agencies	48
Wholesale and retail trade	26
Power generation	9
Oil shale mining	5
Shale oil production	2
Waste water and refuse disposal, city cleaning and other activities	2
Other mining activities	1
Households	1
Water collection, cleaning and distribution	1
Other activities	4
Total	100

Source: Statistics Estonia survey Environmental Taxes

Table 2.5.3. Distribution of environmental taxes by users of services, 2007

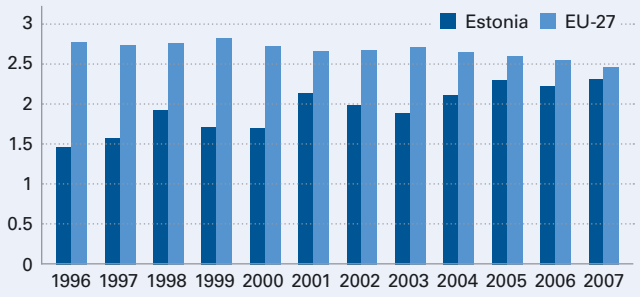
	%
Households	35
Road transport	13
Construction	9
Wholesale and retail trade	7
Real estate; rental	3
Power generation	3
Public administration	2
Manufacturing of products from non-metallic minerals	2
Production of foodstuffs and beverages	2
Manufacturing of wood products	2
Other mining activities	2
Shale oil production	2
Areas of activity related to transportation; the activities of travel agencies	2
Other activities	16
Total	100

Source: Statistics Estonia survey Environmental Taxes

The principles of horizontal and vertical justice are employed in assessing the social aspects of a tax system. The former means that people who are equal in terms of certain characteristics are taxed equally. The principle of vertical justice adds the dimension of placing a heavier tax burden on those who are in a better situation or are able to pay more. When analysing the tax burden at different levels of income, it is possible to speak of progressive or regressive tax systems. A progressive tax system means that the tax burden increases simultaneously with the increase in people's incomes, thus reducing social inequality. In the case of a regressive tax system, the tax burden decreases as people's income grows and taxes therefore have a greater impact on the less wealthy social strata and thus increase inequality.

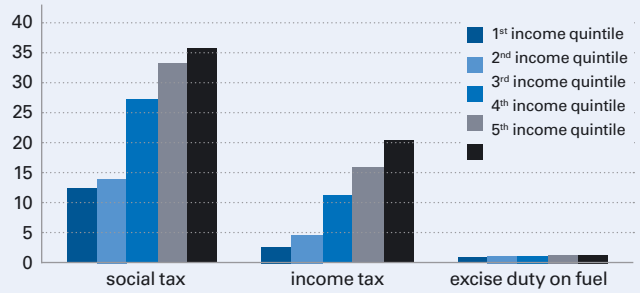
The significance of environmental taxes has increased considerably in Estonia over recent years, mainly due to the country's obligation to increase the fuel excise duty to at least the official EU minimum. In 1996, environmental taxes constituted 1.5% of Estonia's GDP, while the EU

Figure 2.5.2. The level of environmental taxes in Estonia and the European Union 1996–2007, % of GDP



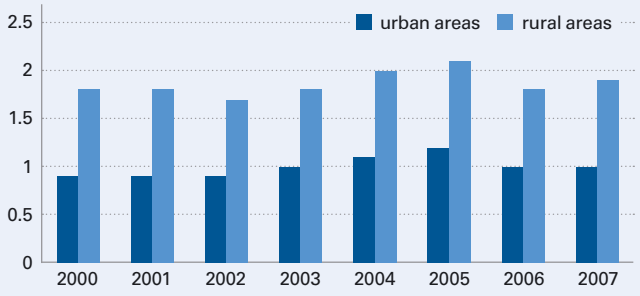
Source: Eurostat 2009

Figure 2.5.3. Average tax burden arising from social tax, income tax and the excise duty on fuel by income quintiles in 2007, %



Source: Poltimäe 2008

Figure 2.5.4. Tax burden arising from the excise duty on motor fuel in the case of people living in urban and rural areas 2000–2007, % of disposable income



Source: Poltimäe 2008

average was 2.8%. By 2007, however, the Estonian indicator had increased to 2.3%, a level relatively similar to the EU average (2.5%) (see Figure 2.5.2).

As mentioned above, Estonia's most important environmental taxes are energy taxes – mainly the fuel excise duty and, since 2008, the excise duty on electricity. The fuel excise duty can, in turn, be divided into two: the excise duty on the energy used in heating homes and the excise duty on motor fuel[8]. The excise duty on home heating constitutes a very small part of the household income in Estonia – the annual average in 2007 was 0.04%. At the same time, this excise duty is clearly regressive: the tax burden makes up a larger percentage of disposable income in lower-income households than in higher-income households.

On an average, the tax burden arising from the excise duty on motor fuel made up 1.3% of people's disposable income in 2007. There is no clear progressive or regressive pattern in the case of the excise duty on motor fuel, since the tax burden is relatively equal for different income groups. It can therefore be stated that the tax burden connected to motor fuels is comparatively proportional. The tax burden related to environmental taxes remained at the same level during 2000–2007: although excise duty rates have been increased on several occasions, people's incomes have also grown considerably.

When we compare the tax burden of the excise duty on fuel to that of social tax and income tax, the differences are quite significant (see Figure 2.5.3). While social tax and income tax are progressive taxes that put a heavier tax burden on higher income groups, the excise duty on fuel is more likely to be characterised as proportional. At the same time, the tax burden connected to the excise duty on fuel is considerably lower than the burden resulting from direct taxes. This means that social tax and income tax have a redistributive effect on income, while the environmental taxes currently levied in Estonia (excise duties on fuel) have no such effect.

Figure 2.5.3 indicates that in 2000–2007 the household tax burden arising from the excise duty on fuel was relatively low as well as proportional, i.e. fairly distributed based on household incomes. However, the excise duty rates were increased significantly in 2008 and additional excise duties were implemented on electricity and natural gas, which will, by all accounts, impact less wealthy households the most, since heating expenses make up a larger share of their budgets. Preliminary calculations show that the excise duties on both electricity and natural gas are regressive in nature and affect lower-income households more than higher-income households.

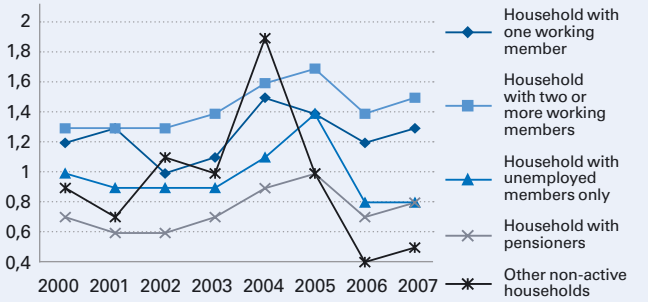
In addition to the impact of environmental taxes on households with different incomes, it is also important to know their effect on different social groups. If we compare the effect of the tax burden resulting from the excise duty on fuel for people living in urban and rural areas, it is clear that the tax burden on residents of rural areas is almost twice as heavy as that on city dwellers (see Figure 2.5.4). In this context, people living in villages and small towns are considered residents of rural areas. During the period 2000–2007, the tax burden arising from the excise duty on motor fuel ranged between 0.9% and 1.2% in the case of inhabitants of urban areas, while for people living in the countryside, the figure varied between 1.7% and 2.1%. The fact that people living in rural areas spend a larger share of their income on motor fuel than city dwellers is explained by their greater dependence on cars, since they have to travel longer distances and their public transport options are limited.

[8] In addition to environmental taxes, Estonia has also implemented environmental charges which are paid by businesses in the form of resource and pollution charges. However, the influence such charges have on households is not as easy to estimate as the effect of the excise duty on fuel: the latter is calculated on the basis of the amount of fuel used, while environmental charges are "hidden" in the companies' cost structures and their impact is therefore more difficult to assess.

If we examine the tax burden connected to environmental taxes in terms of the social status of the households, it is apparent that Estonia's excise duty on fuel has the greatest impact on households with working family members (see Figure 2.5.5). Households that have two or more working members bear the heaviest tax burden resulting from the excise duty on fuel (1.5% of disposable income in 2007). The tax burden is also relatively heavy (1.3%) in the case of households that have one working member. Households comprising retired and unemployed individuals bear the lowest tax burden (0.8%).

Direct conclusions cannot be drawn from the tax burden analysis regarding people's quality of life, since the excise duty on fuel is calculated on the basis of the amount of fuel used and we do not have sufficient information on whether the less wealthy population groups would need or prefer to spend more on transport. On the other hand, the direct connection between transport costs and employment does indicate the relative lack of importance of public transport. Inadequate public transport increases the rate of motorisation, which, in turn, has negative impacts on the environment and health. Due to this, the excise duty on fuel as the only tax levied on transportation in Estonia could also have the environmentally friendly objective of reducing motorisation. Both environmental and social effects should be taken into account when tax policy is developed in the future. In addition, attention should be paid to the issue of whether an excise duty on fuel is the most suitable measure for reducing car use in a situation where people living in rural areas mainly depend on their cars for transport. Since the majority of car users live in cities and nearby rural municipalities, the key to reducing motorisation and improving people's living environment seems to be the development of public transport.

Figure 2.5.5. Connection between the average tax burden arising from environmental taxes and the economic activity of household members 2000–2007 (% of disposable income)



Source: Poltimäe 2008

In conclusion, it should be said that although the tax burden arising from the excise duty on fuel is currently relatively small, the increasing negative effect on the poorer population must be taken into account when new excise duties are implemented or the existing rates are raised. In the case of tax changes, consideration must be given to all of the different economic, fiscal, social and environmental results of the process. Of course, no tax can solve all of the country's problems and compromises between various goals are inevitable. The state must, however, develop suitable measures for mitigating any negative effects that may occur.

References

1. Grüner, E., Salu, K., Oras, K., Nõmmann, T. (2009). Keskkonnamaksud - keskkonnakaitse majanduslikud meetmed. Quarterly Bulletin of Statistics Estonia 3/2009, pp. 6–34
2. Eurostat (2001). Environmental taxes — A statistical guide. European Communities
3. ES = Estonian Statistics (2009). Environmental Taxes Final Report. Grant Agreement No 71401.2007.014-2007.486
4. Eurostat (2009). Taxation trends in the European Union. [http://ec.europa.eu/taxation_customs/resources/documents/taxation/gen_info/economic_analysis/tax_structures/2009/2009_full_text_en.pdf]
5. Poltimäe, H. (2008). Keskkonnamaksude mõju leibkondade tulujaotusele. Master's thesis. University of Tartu, Faculty of Economics

2.6. Environmental factors and public health

Among a multitude of factors, the environment plays an important role in the complex synergy that shapes public health. The European Charter on Environment and Health adopted by the ministers of health and the environment of the European Region of the World Health Organization (WHO) stipulates the main principles and strategies for activities in the field of the environment and health. The Charter emphasises that good health and wellbeing require a clean and harmonious environment and that the health of every individual, especially those in vulnerable and high-risk groups, must be protected. Every individual is entitled to an environment conducive to the highest attainable level of health and wellbeing; information and consultation on the state of the environment, and on plans, decisions, and activities likely to affect both the environment and health; and participation in the decision-making process (WHO 1989). The WHO HEALTH21 policy framework includes a goal of making the living environment safer for all inhabitants of the European Region by the year 2015 through ensuring that their contact with pollutants hazardous to their health does not exceed the level established by international standards. In order to achieve this, people's contact with hazardous physical, microbial and chemical factors contained in water, air, food, waste and soil must be limited significantly and they must be provided access to sufficient quantities of quality drinking water (WHO 2000).

According to WHO estimates, 24% of all global health loss occurs due to environmental factors and the rate is

Table 2.6.1. Environmental health risks in Estonia

Environmental factors	% of total mortality rate
Infectious agents in the media of the living environment	6
Traumas, excluding suicides	10
Radioactive, UV and other electromagnetic radiation	1
Polluted outdoor air	2
Unhealthy dwelling (radon, air pollution, etc.)	7
Polluted and substandard drinking water and food	11
Working environment	3
Total:	At least 40

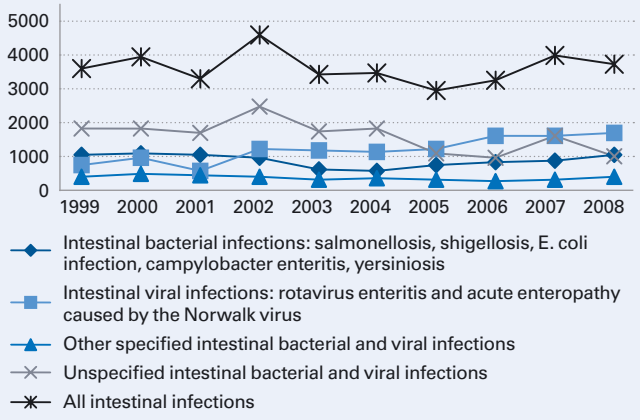
Source: NEHAP 1999

Table 2.6.2. Importance of environmental factors (%) in morbidity related to some disease groups

Disease group or disease	Global average (%)
Intestinal parasitic diseases	100
Tick-borne encephalitis	95
Intestinal infectious diseases	94
Drownings	72
Involuntary poisonings	71
Bronchial asthma	44
Chronic obstructive pulmonary disease	42
Infections of lower respiratory tract	41
Traffic traumas	40
Infections of upper respiratory tract	25
Malignant tumours	19
Tuberculosis	18

Source: WHO 2006

Figure 2.6.1. Prevalence rate of intestinal bacterial and viral diseases in Estonia between 1999 and 2008 (number of cases)



Source: Health Protection Inspectorate

even higher – 34% – in the case of children (ages 0–14). The environmental impact on health varies by region. According to WHO estimates, the environment accounts for 19% of the total health loss in Estonia. These estimates are based on only those environmental factors that people can affect/improve (WHO 2006).

In Estonia, the percentage of health risks caused by the environment among the causes of death was first assessed in connection with the preparation of the national environmental health action plan (NEHAP 1999). According to the assessment, at least 40% of deaths in Estonia may be caused by environmental factors (see Table 2.6.1).

In 2002, for example, 64,266 life years were lost in Estonia based on the overall health loss of the Estonian population (Lai, Kiivet 2004) and the WHO assessment of the relative importance of the environment.

The significance of environmental factors is different in the case of the development of different diseases (see Table 2.6.2). The environment plays the largest role in the case of biological factors (pathogenic bacteria, viruses, protozoa, helminthes) which cause acute infectious, parasitic or transferred diseases or poisoning. Factors that favour morbidity or are related to it include the microbial contamination of food and water, the state of the water supply and sewerage, and also, to a large degree, people's personal hygiene as well as their health and environmental awareness and corresponding behaviour. Dangerous natural outbreaks of diseases include outbreaks of tick-borne encephalitis and borreliosis (Lyme disease), which are spread in Estonia by the tick species *Ixodes persiculatus* and *Ixodes ricinus*.

In the case of most diseases, the significance of environmental factors varies quite widely and depends on the general lifestyle of the population as well as their level of healthcare, including the protection of health.

The data on the prevalence rate of infectious diseases related to the environment in Estonia over the past decade is provided in Figure 2.6.1. It is evident that intestinal bacterial and viral diseases have become more common in recent years (2004–2008). The Estonian prevalence rate of certain diseases (such as salmonellosis, shigellosis and yersiniosis) is similar to the average EU indicators, while other diseases (campylobacteriosis) are diagnosed considerably less frequently in Estonia than in the EU on the average, but also Sweden and Finland (see Figure 2.6.2). Although the prevalence rate of tick-borne encephalitis has fallen somewhat as a result of vaccination, the number of new cases of tick-borne borreliosis has nearly quadrupled during the same period (see Figure 2.6.3). An increase of this magnitude cannot be explained solely by climate change (the lengthening of the ticks' period of biological activity, the changes in the numbers of host organisms) – we must also take into account the socio-economic changes that have increased people's contact with the danger posed by ticks (changes in land use, unemployment, poverty) (Šumilo et al. 2007; 2008).

People are also endangered by rabies which is widespread among animals, although compared to previous years, fewer cases of animal bites and animals infected by rabies have been reported. This decrease was made possible by the oral rabies vaccination programme that targeted wild animals.

The harmful effect of environmental chemical and physical factors on people's health becomes apparent over the course of prolonged exposure and is therefore difficult to ascertain. Children as well as elderly people are especially sensitive to environmental conditions. Maximum levels have been established for harmful substance content in food, water, air, and many types of materials in order to prevent the substances' harmful impact on public health. If the acceptable levels are exceeded, the risk of occurrence of certain diseases (tumours, nerve, liver, kidney and thyroid injuries, etc.) grows. The nature and extent of the health risk could be evaluated through the biomonitoring of the population, which would entail monitoring the presence of harmful substances in the organisms of people inhabit-

ing a certain region. Human biomonitoring is being conducted in the USA, Canada and several European countries. The European network on Human Biomonitoring, called COPHES II, was launched on 1 December 2009. It would be advisable for Estonia to join this network.

Below we will examine only the most important natural environmental factors that have an impact on people's health – food, water (the population's water supply), and air. This does not mean that other factors, such as waste, ultraviolet radiation and electromagnetic fields do not affect our health.

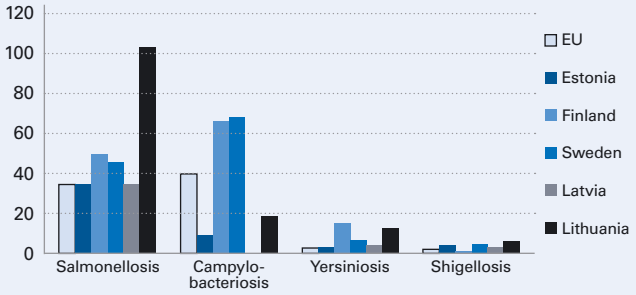
Food

Food is the most important environmental factor that influences our health. It provides us with the nutrients and energy we need. However, food can also cause several illnesses. Although people consider the contaminants and additives found in food to be the main health risk, the microbial contamination of food is actually far more dangerous. Common sources of infection include poultry, uncooked or undercooked meat, unpasteurised dairy products and uncooked foods.

Between 2005 and 2008, 24 food-borne illness outbreaks which affected 426 people were registered in Estonia, 19 of which were salmonellosis outbreaks (which affected a total of 317 people). In 2002–2008, salmonellosis pathogens were found in 0.7% of all food samples (the frequency varied between 0.29% and 1.48% over the period) and campylobacter enteritis pathogens were found in 4.5% (2.4%–6.1%) of the samples. Chicken made up the largest share of the contaminated meat, although contaminants have also been found in fresh beef and pork (VFB, 2008). In fact, food-borne intestinal infections occur much more frequently than the registered prevalence rate would indicate (according to WHO estimates, the actual frequency is as many as 300 times greater than the reported frequency). Among 2000 people interviewed in Estonia, 723 reported having experienced diarrhoea, yet only 81 of these instances (11%) were reported as cases of illness and just 40 (5.5%) of them were diagnosed more specifically (HPI, 2002). There are several reasons for this tendency. On the one hand, people do not usually see a doctor regarding mild cases of diarrhoea and many intestinal infections are therefore left unregistered. On the other hand, healthcare reforms have decreased the availability of medical care.

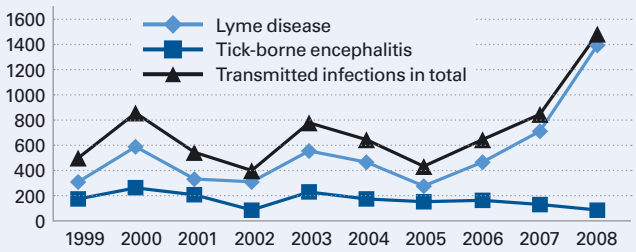
Health problems caused by the chemical properties of food have not been registered in Estonia in recent years, although such dangers are often the subject of public discussion. Many compounds used in foods have been revealed to be possible human carcinogens. Food additives are also connected to the increased frequency of allergies. Due to the potential hazard they present to people's health, it is important to know the content of different substances in foods, as well as the received and acceptable daily amount of such substances. Awareness of these details makes it possible to assess the risks involved in consuming different products. Excessive content of the most common additives, such as benzoic acid and sorbic acid, synthetic food colourants and sweeteners has been discovered in 5–7% of all food samples over the years (Reinik, Margna 2009). Regrettably, the number of studies focused on additives has decreased significantly in recent years. This could lead to a situation where products that exceed the norms can no longer be analysed.

Figure 2.6.2. Prevalence rate of intestinal bacterial diseases (per 100,000 inhabitants) in the EU, Estonia, and Estonia's neighbouring countries



Source: European Centre for Disease Prevention and Control

Figure 2.6.3. Prevalence rate of tick-borne encephalitis and borreliosis in Estonia between 1999 and 2008 (number of cases)



Source: Health Protection Inspectorate

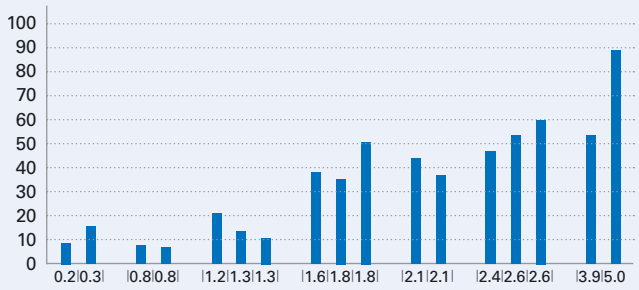
Estonian farmers generally use environmentally friendly production methods. In the 1422 samples of Estonian vegetables and fruits analysed since 1998, no pesticide residues were found in 84.4% of the samples and just 1.8% of the samples exceeded the maximum pesticide content limit. In the case of imported products, however, the corresponding figures were 42.2% and 4.0% (Toome 2009). The persistent organic pollutant content of the food products manufactured in Estonia has not exceeded the maximum allowed limit. Imported food products, on the other hand, are more suspect in this regard (Roots 2009).

When we look at the entire population, the average dose of nitrites and nitrates consumed in food constitutes 61% and 35% of the acceptable daily intake, respectively. The largest percentage of these substances comes from meat products treated with nitrites and vegetables, mainly cabbages and potatoes, which contain excessive amounts of nitrates. Alarmingly, children's nitrite intake is often higher than the acceptable daily dose: at least 29% of children aged 1–6 exceed the acceptable level of nitrite intake, primarily due to the consumption of sausage products. Children aged 1–3 often exceed their acceptable daily intake of nitrates due to consuming vegetable-based foods (Reinik 2007).

Drinking water

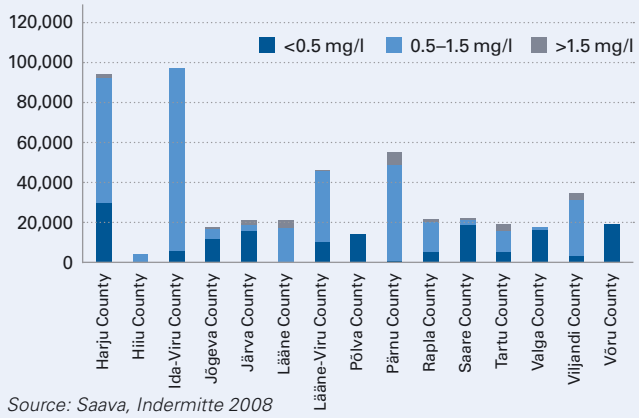
Supplying the population with sufficient quantities of high-quality drinking water along with the related sewage treatment is one of the priorities related to public health. The development of water supply and sewerage systems makes it possible to considerably reduce intestinal infection prevalence rates. There is a proven connection between various chemical components of drinking

Figure 2.6.4. The prevalence rate of dental fluorosis in Estonia depending on the fluoride content of drinking water



Source: Indermitte ***et al.*** *2009*

Figure 2.6.5. Number of people who consume water with different fluoride content by counties (excluding the inhabitants of the cities of Tallinn, Tartu and Narva)



Source: Saava, Indermitte 2008

water (nitrates, fluorides, boron, aluminium, barium, etc.) and certain non-infectious chronic diseases (WHO 2004).

Estonia's population is generally well supplied with drinking water. All towns and most small settlements are connected to public water supplies, which are used by 84% of the population (Birk 2008). The rest of the population gets their drinking water from shallow bore wells and dug wells. In 2008, 1203 water supplies were under state supervision, many of them small water supplies (89% have a capacity lower than 100 m^3/day, i.e. no more than 500 consumers). Measures for improving water quality and required quality control activities are more difficult to implement in the case of smaller water supplies. Water supplies with capacities up to 10 m^3/day (50 consumers) and private wells do not fall under state supervision and are not subject to quality and supervision requirements. Both surface water and groundwater are used as sources of drinking water. Surface water is processed into drinking water in two cities – Tallinn and Narva. Groundwater is collected from ten different water bodies (depending on the region). The chemical composition and protection from pollution of these bodies of water differs based on their hydro-geological conditions. As a result, ensuring the availability of quality drinking water is a serious problem in some regions.

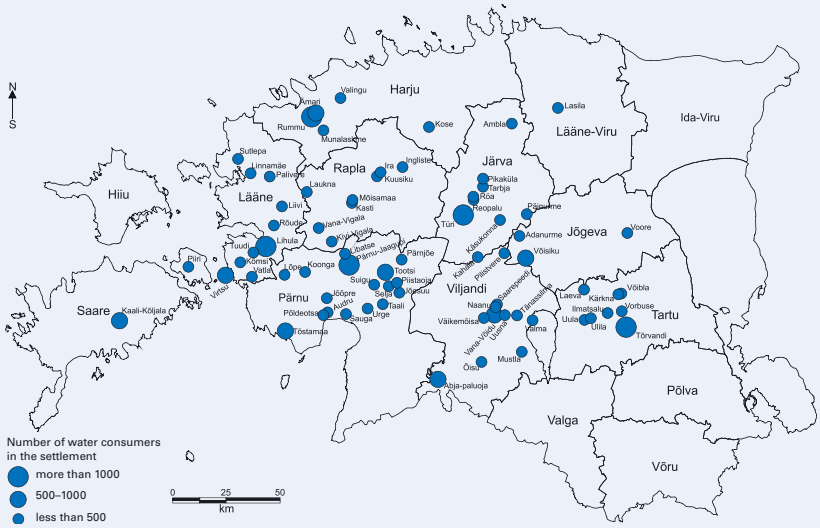
No waterborne outbreaks have been registered in Estonia since 1996, although such cases have occurred before – a total of 150 outbreaks were registered between 1945 and 1995. The largest of these were the 1963 dysentery outbreak in Ahtme which infected 1254 people and the 1993 viral hepatitis A outbreak in Sõmeru which infected 614 people. (Birk 2008) Thanks to the measures taken and the state supervision put in place, there have been no water supplies in Estonia in recent years (2002–2007), where the water did not constantly meet the microbiological requirements. Temporary deviations have been recorded in the case of up to 0.5% of all water supplies (with up to 0.01% of all water consumers being jeopardised as a result). During the second half of 2008, problems were encountered in connection with the state of repair of a bore well and reservoir in one of the city districts of Järve in Kohtla-Järve (20,000 water consumers). The water was chlorinated in order to prevent infection. The water in individual shallow wells can be polluted, but such wells are not inspected.

Natural fluorides are the chemical components of drinking water that present a problem for our water supplies. Drinking water with low natural fluoride content (up to 0.5 mg/l) does not protect children's teeth from caries, while water with excessive fluoride content (over 1.5 mg/l) can cause dental fluorosis as well as many other health problems (WHO 2004; Indermitte, Saava 2006). The connection between the prevalence rate of children's dental caries and fluorosis and the fluoride content of drinking water has been confirmed by research conducted in Estonia (see Figure 2.6.4).

The fluoride content of Estonian water supplies varies to a great degree: from 0.05 to 6.95 mg/l (0.83±0.78 on average) depending on the water source. Estonia's surface water has low levels of fluoride content. As of November 2008, 43.9% of Estonia's population (469,902 people) was consuming water that had the acceptable fluoride content (0.5–1.5 mg/l), while 577,755 people were using drinking water with an insufficient fluoride content (<0.5 mg/l). At the same time, 23,635 people (2.2% of the population) were using water with excessive fluoride content (>1.5 mg/l) that is harmful to their health. In total, the percentage of people who consume water that has excessive fluoride content fell by 22% between 2004 and 2008 (Saava, Indermitte 2008). The quality of water varies greatly from county to county (see Figure 2.6.5). There is a heightened prevalence risk of fluorosis caused by the excessive fluoride content of drinking water in ten counties (see Figure 2.6.6). The level of risk is highest in Pärnu County and Lääne County (with approximately 1150 and 770 inhabitants being affected, respectively). Water economy plans include measures for improving the state of all water supplies in order to ensure that the public has access to drinking water that meets all of the requirements. Based on public health indicators, measures should first of all be implemented in the case of larger water supplies with excessive fluoride content (in Virtsu, Sauga, Pärnu-Jaagupi, Tõstamaa, Laeva, etc.).

Trihalomethanes (THMs) that formed from a natural organic substance as byproducts of the chlorination of the drinking water present a significant danger to the health of the population of the city of Narva, seeing as their content in the water exceeds the permitted limit since 2004. THMs increase the risk of cancer (mainly bladder and intestinal cancer) in water consumers. Based on research conducted in other countries, it is possible to speculate that several dozen new cases of cancer are caused each year by the THM content of drinking water in Narva (Saava 2007). At the same time, compromises cannot be made with regard to the chlorination of water, since the use of insufficiently

Figure 2.6.6. Number of water consumers in settlements (water supplies) with drinking water that has excessive fluoride content (as of November 2008)



Source: Saava, Indermitte 2008

disinfected drinking water increases the consumers' risk of contracting intestinal infections 100–1000 times. More efficient methods of cleaning and disinfecting the water have to be implemented in Narva in order to prevent the occurrence of excessive THM levels. Tallinn, for example, does not have a similar problem, since the water taken from Lake Ülemiste is disinfected with ozone.

In recent years, it has become apparent that the Cambrian-Vendian aquifer system used as a source of drinking water in Northern Estonia contains radionuclides[9]. There are 184,000 people using water with radionuclide content that is higher than the acceptable level (14% of Estonia's population) in 41 rural municipalities and towns across Northern Estonia (Tallinn along with Harju County and the northern part of West Viru County) (Radiation Protection Centre 2005). The total radiation dose from all sources must be taken into account upon assessing the health impact of this fact. Consumption of drinking water with elevated levels of radioactivity may increase the risk of cancer. Small children are especially susceptible to carcinogenic radioactivity as they absorb more radium during their period of growth (Muzõtsin 2008).

In certain regions, people's health can also be affected by the excessive levels of boron (reproductive health problems, low birth weight in newborns), barium (cardiovascular diseases), nickel (allergies), and lead (poisoning) in their drinking water. However, the existing data is not sufficient to calculate the health risks presented by these substances.

Excessive iron, manganese, ammonium or chloride content also interferes with water use in some regions. While these substances are not hazardous to people's health, they do worsen the organoleptic properties (colour, transparency, taste) and conditions of use (iron rust on appliances, sedimentation) of water. In 2008, 41.9% of all water supplies (a total of 1203) contained excessive levels of these substances, affecting 256,827 water consumers (Birk 2008). The production, treatment and selling of such drinking water only takes place on the basis of permits authorizing the sale of drinking water that does not meet the quality requirements but is safe for human health.

Bathing water can also pose a health risk. It can spread eye and ear inflammations, intestinal infections, and allergies. The massive Cyanophyceae growth that occurs in water during hot summers can cause skin rashes, allergic reactions, poisoning, etc.

Air

The quality of ambient air affects everybody's health and quality of life. It is worsened by pollutants that have a direct or indirect impact on people's health. In health impact assessments, the level of air pollution is determined by measuring levels of particulate matter (PM), a complex mixture of various components (soot, metals, acids, etc.). It has been found that the health impact of PM is related directly to the size of the particles. Particulate matter with a diameter of up to 10 µm (PM10) pass through the nasal cavity and throat and mainly cause acute effects in the respiratory tract. Sensitivity to such particles is common primarily among people suffering from heart or lung disease. Meanwhile, ultrafine particles with diameters of less than 2.5 µm (PM2.5) can reach pulmonary alveoli and pass into the bloodstream, causing chronic effects.

The health impact of ambient air and the monetary loss involved has been evaluated in the five largest Estonian cities (Tallinn, Tartu, Kohtla-Järve, Narva, and Pärnu) based on data available on the population, mortality and air pollution. Calculations regarding the air pollution affecting the populations of the settlements with fine and ultrafine particles were made based on modelled annual and daily average content levels (Orru 2007; 2008). According to estimates, in the five cities where the research was conducted, air pollution can be considered a cause of premature mortality in 463 cases

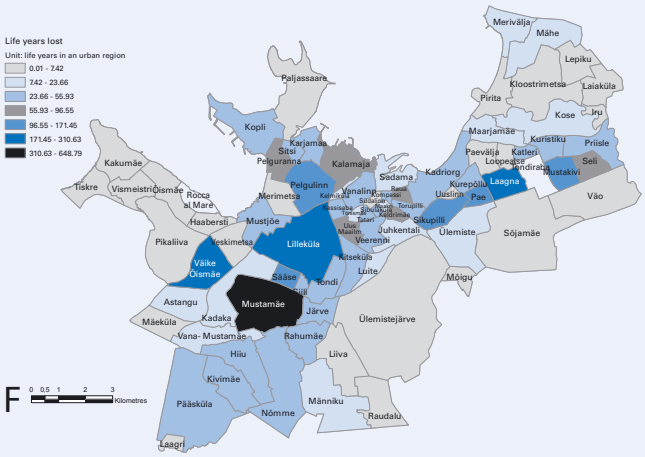
[9] The water contained high levels of Ra-226 and Ra-228 and moderate levels of Pb-210 and Po-210, while the U-238 and U-234 content of the water was low.

Table 2.6.3. Annual health impact of air pollution and the resulting monetary losses in Estonian cities

City	Number of early deaths	Life years lost		Shortened life expectancy, in years	Number of hospitalisations	Monetary value of life years lost (millions of EEK)	Cost of hospitalisation (millions of EEK)
		number	per 10^5 inhabitants				
Tallinn	296	3859	987	0.64	275	2672	8.6
Tartu	64	879	869	0.68	129	609	3.8
Kohtla-Järve	18	257	556	0.35	35	178	1.0
Narva	38	534	780	0.51	65	370	1.9
Pärnu	47	546	1202	0.95	65	378	1.9
Total	463	6075			569	4207	17.2

Sources: Orru 2007; 2008

Figure 2.6.7. Life years lost in the urban regions of Tallinn in a year due to ambient air pollution



Source: Orru 2007

Table 2.6.4. Number of people in Tallinn affected by excessive daily and nightly noise (acceptable levels 55 and 50 dB, respectively)

Noise level (dB)	Street traffic		Railroad traffic		Industrial noise		Air traffic noise	
	daily	nightly	daily	nightly	daily	nightly	daily	nightly
50-54	-	28733	-	8993	-	0	-	44
55-59	45605	6922	10647	5708	2403	0	1399	3
60-64	23526	599	6938	2454	598	0	4	0
65-69	5719	15	3521	245	1216	0	0	0
70-74	296	0	872	4	46	0	0	0
>75	0	0	17	0	0	0	0	0
Total	75146	36269	21995	17404	4263	0	1403	47

Source: Ramboll Eesti AS 2008

annually which amounts to the loss of 6075 life years on a yearly basis[10] (see Table 2.6.3). In addition to this, 569 people are hospitalised each year due to respiratory tract diseases and cardiovascular diseases related to air pollution. In the cities, the health impact of air pollution is different in various urban regions. The greatest total health impact is found in urban regions that have the largest number of inhabitants, such as Mustamäe, Lilleküla, Väike-Õismäe and the Laagna urban region in Tallinn (see Figure 2.6.7). When we consider the health impact proportionally per 100,000 inhabitants, however, the health impact is the greatest in the most polluted parts of central Tallinn – Kompassi, the city centre area, and Tõnismäe. Annual monetary losses resulting from air pollution have been estimated at 4207 million EEK, which includes the expenses related to premature mortality and the hospitalisation of people whose illnesses are connected to air pollution (see Table 2.6.3).

In addition to air pollution, the health and welfare of the public is also disturbed and prejudiced by noise. Noise causes sleeping disorders, irritation and hearing loss, but also other health problems resulting from interference with sleep, rest, studying and communication. The noise caused by motor, railroad and air transport has the most significant effect on the public. Traffic noise is an especially serious problem in a city environment. According to WHO estimates, nearly 40% of the population of the EU comes into contact with road traffic noise levels that exceed the acceptable daily margin (55 dBA). The level of car traffic in our towns, including Tallinn, is high, and the noise that affects people the most is the result of street traffic (see Table 2.6.4). Approximately 20% of Tallinn's inhabitants live in areas where the daily noise from car traffic exceeds the acceptable level, while just 5.5% of the population is bothered by railroad noise. Industrial noise sources do not have a significant impact on the population of Tallinn. It is also necessary to study the situation related to noise in other towns and to plan for measures that will protect the public from noise.

In conclusion, it must be stated that although efforts have been made to study the environmental factors that affect the wellbeing and quality of life of the population in Estonia and to decrease the impact of these factors by implementing various measures, the problems, especially those connected to the quality of drinking water, have not yet been solved in many of the counties. The situation related to drinking water in Narva, with its several specific health risks, gives particular cause for concern. Too little attention has also been devoted to the impact of traffic noise on the health and quality of life of people living in towns and cities. Meanwhile, new environmental effects hazardous to our health have come into being in the conditions of the consumer society. For example, more attention should be paid to the risks involved in the consumption of imported food products, especially to children's health, and the awareness of the population should be raised with regard to this subject. In order to further the assessment of the impact of the environment on health, Estonia should join the human biomonitoring network launched in the EU with the aim of obtaining information regarding people's actual exposure to harmful factors.

[10] On an average, 10–13 life years are lost in the case of premature death and life expectancy decreases by eight months for every inhabitant of the city.

References

1. Birk, K. (2008). Järelevalve joogivee kvaliteedi üle 2008. aastal. Health Protection Inspectorate
2. European Centre for Disease Prevention and Control (2008). Annual Epidemiological Report on Communicable Diseases in Europe 2006. Stockholm, ECDC
3. European Human Biomonitoring. http://www.eu-humanbiomonitoring.org/
4. HPI (2002). Soolenakkustest. Health Protection Inspectorate
5. Indermitte, E., Saava, A. (2006). Fluor joogivees, selle võimalikud tervisemõjud. Eesti Arst, 85 (1), pp. 26–31
6. Indermitte, E., Saava, A., Karro, E. (2009). Exposure to fluoride through drinking water in Estonia and risk of dental fluorosis. Int. J. Environ. Res. Public Health 6, pp. 710–721
7. Lai, T., Kiivet, R.-A. (2004). Haiguskoormuse tõttu kaotatud eluaastad Eestis: seosed riskifaktoritega ja riskide vähendamise kulutõhusus. Ministry of Social Affairs, University of Tartu
8. Muzõtsin, M. (2008). Assessment of the health risks from non-compliance with drinking water parametric values. Radioactivity in drinking water – is it a problem for the country? HPI
9. NEHAP (1999). Eesti keskkonnatervise riiklik tegevusplaan. Ministry of Social Affairs, Tallinn
10. Orru, H. (2007). Välisõhu kvaliteedi mõju inimeste tervisele Tallinna linnas. University of Tartu, Tartu
11. Orru, H. (2008). Välisõhu kvaliteedi mõju inimeste tervisele Tartu, Kohtla-Järve, Narva ja Pärnu linnas. University of Tartu, Tartu
12. Radiation Protection Centre (2005). Joogivee radioaktiivsusest põhjustatud terviseriski hinnang. Report on the research work performed in accordance with contract for services, No 9.3–4/1110, dated 26 October 2005, Tallinn
13. Ramboll Eesti AS (2008). Tallinna linna välisõhu strateegiline mürakaart. Explanatory memorandum. Part 2. 30 June 2008
14. Reinik, M. (2007). Nitrates, nitrites, N-nitrosaimnes and polycyclic aromatic hydrocarbons in food: Analytical methods, occurrence and dietary intake. Dissertationes Chimicae Universitatis Tartuensis, 70, Tartu University Press
15. Reinik, M., Margna, L. (2009). Toidu kvaliteedi ja ohutuse seireprogrammid. Lisa- ja saasteainete seire 1998-2008. Collection of presentations from the 55th conference of the Estonian Society of Health Protection. Tallinn, pp. 50–56
16. Roots, O. (2009). Püsivad orgaanilised saasteained on vaikselt varitsev oht tervisele. Eesti Arst 88(2), pp. 139–140
17. Saava, A. (2007). Ekspertarvamus Narva linna joogivee kvaliteedi kohta. University of Tartu, Department of Public Health
18. Saava, A., Indermitte, E. (2008). Joogivee liigsest fluoriidisisaldusest tulenev hambafluoroosirisk Eesti elanikel ja soovitused riski vähendamiseks. Final Research Report. University of Tartu, Department of Public Health, Tartu
19. Sumilo, D., Asokliene, L., Bormane, A., Vasilenko, V., Golovljova, I., Randolph, S. (2007). Climate Change Cannot Explain the Upsurge of Tick-Borne Encephalitis in Baltics. PloS ONE 2(6): e500
20. Sumilo, D., Bormane, A., Asokliene, L., Vasilenko, V., Golovljova, I., Avsic-Zupanc, T., Hubalek, Z., Randolph, S. (2008). Socio-economic factors in the differential upsurge of tick-borne encephalitis in Central and Eastern Europe. Reviews in Medical Virology, 18, pp. 81–95
21. Toome, M. (2009). Kümme aastat taimekaitsevahendite jääkide seiret toiduainetes. Collection of presentations from the 55th conference of the Estonian Society of Health Protection. Tallinn, pp. 77–80
22. VFB (2008). Zoonooside aruanne 2008. Veterinary and Food Board (VFB)
23. WHO (1989). European Charter on Environment and Health. First European Conference on Environment and Health, Frankfurt-am-Main, Federal Republic of Germany, 7–8 December 1989
24. WHO (2000). Tervis 21: WHO Euroopa piirkonna "Tervis kõigile" raampoliitika. Kirjastus Elmatar, Tartu
25. WHO (2004). Guidelines for drinking-water quality. 3nd Ed.; Volume 1. Recommendations. World Health Organization, Geneva
26. WHO (2006). Preventing disease through healthy environments. Towards an estimate of the environmental burden of disease. Geneva

2.7. Public attitudes towards the environment

The following section of the chapter will be based on the results of the representative opinion survey *Man and Environment 2007* organised by SEI Tallinn in collaboration with Turu-uuringute AS, in the course of which 1003 respondents were interviewed.

Opinions of the state of the environment in Estonia

The survey demonstrated that Estonia's population is relatively satisfied with the condition of the environment. Of the respondents, 74% considered the state of the environment near their home (the rural municipality or town where they live) to be rather good or very good, 69% said the same about Estonia, 44% about Europe, and 18% about the world. According to the survey, Estonia's population is more worried about the state of the environment elsewhere in the world and less worried about their own neighbourhood. In assessing the state of the environment in the entire world, the majority of the respondents (53%) felt that the situation was rather bad or very bad.

People's opinions of the state of the environment in their residential areas and in Estonia in general had improved significantly compared to 1994. In 1994, only 53% of the respondents considered the state of the environment to be rather good or very good near their home and just 40% said the same about Estonia in general. While in 1994, 45% of the respondents felt that the state of the environment in their neighbourhood had deteriorated within the past decade, only 30% of the respondents noticed a deterioration in the state of the environment in the last survey. A third of the respondents thought the situation had improved and a third had not noticed a change in the state of the environment.

According to the majority of respondents, the environmental aspects in the best condition close to their homes included the appearance of the environment, the air, the green spaces, and the avenues. The environmental aspects that were considered to be in the worst shape included roads, streets and courtyards. The respondents' assessments varied the most in the case of drinking water and noise levels.

The greatest improvement, compared to 1994, has occurred in the respondents' average opinion of the state

of the bodies of water near their home. Respondents' average opinions have generally improved regarding all environmental aspects surrounding their homes, except for noise levels and the state of repair of the roads.

With regard to the future of the area surrounding their home, most people (76%) believed that the environmental status would improve or at least remain unchanged during the next few decades. No more than 17% of the respondents thought that the state of the environment would deteriorate. People were also optimistic about the state of the environment in Estonia as a whole as well as Europe. Meanwhile, pessimistic attitudes prevailed with regard to the world in general (37% believed the state of the environment would deteriorate and 19% thought it would improve). Compared to 1994, the percentage of optimistic opinions has increased both with regard to the areas neighbouring the respondents' homes as well as Estonia in its entirety. The 1994 survey did not include questions about the state of environment in Europe and the world.

Relevance of environmental problems

Almost all of the respondents in the survey considered the protection of the environment to be clearly necessary, since nature is a value in itself (96%), the environment is the basis for people's wellbeing (96%), and future generations have the right to live in a clean environment (95%). Social problems, especially issues related to the growing cost of living were mentioned in the responses to the survey (both spontaneously and in the case of multiple choice questions) as the most important group of problems to be solved in Estonia in 2007. In the case of spontaneous responses, environmental problems ranked second in terms of their frequency of occurrence (were mentioned by 9% of the respondents). From among a choice of seven problems, 65% of the population considered the deterioration of the state of the environment to be a rather serious or very serious problem.

The majority of the population (52%) feel personal concern for the environment. Compared to 1994, however, the percentage of concerned people has dropped considerably. At that time, 73% of the population was personally rather concerned or very concerned about the environment. In terms of average figures, the most topical environmental problems included the environmental impact of transport, logging and the decline of the number of species in forests, the environmental impacts that affect human health, waste and its treatment, and excessive construction activities along coastal areas (all of the above-mentioned aspects received a rating above 7 on a scale of 1–10, where 10 indicates a catastrophic situation).

Compared to the 1994 survey, people's opinions have improved with respect to agricultural pollution, the quality of drinking water and the state of the forests. Average opinions regarding other aspects, however, especially the state of the beaches, climate change and the damaging of ecological reserves had worsened by 2007 (some of the aspects listed in the latter survey were not included in the 1994 version). Raising people's environmental awareness and encouraging them to change their lifestyles were considered to be the best solutions for environmental problems by most (93% of the respondents). People also supported the implementation of strict legislation and severe penalties (76% of the respondents) and improved supervision (75%).

Of the respondents, 80% do not agree with the claim that current human activity does not seriously endanger the environment due to nature's sufficient capacity for recovery. However, the number of people who do believe that environmental problems should not be blown out of proportion since people will adapt or find solutions to the changes has doubled since 1994 (9% in 1994, compared to 18% in 2007).

Environmental information

continues to be made available to the public mainly through television and newspapers. Personal observations regarding nature are the third most important source of information, even outpacing online sources (which are in the fourth position). Compared to 1994, the role of television has increased, while the importance of radio and books has decreased. Although most people thought that environmental issues were discussed sufficiently often in the media, a third of the population believed that more could be said about the environment, especially in the print media.

Importance of the environment to human health

While a third of the respondents believed that the environment has a significant impact on their health, two thirds were of the opinion that the state of the environment does not affect their health to a considerable degree at the moment (67%), nor did it affect their health a decade ago (61%). At the same time, people feel that the environmental impact on health is growing, since most respondents (54%) thought that in 25 years the state of the environment would have an effect on their own health as well as the health of their descendants.

The respondents see improper diet, lifestyles that involve little movement, smoking, and the lack of sleep as the most common factors influencing public health. The poor state of the natural environment was ranked last among all health factors: only 13% of the population believed the poor state of the environment to be a strong influence on their health, while 40% thought that it had no impact whatsoever on their health. Spending time outdoors and growing house plants proved to be the most popular nature-related activities. Compared to the previous survey, there has been an increase in the number of people who go hiking or play sports outdoors and observe nature. At the same time, the number of people who grow horticultural products or work in the fields or the forest has fallen.

Bad working conditions were mentioned as a factor that influences people's health by 37% of the population. The most common aspects that bother people about their place of work are noise, unsuitable temperature or ventilation, and dust/soot. All of these factors, especially temperature, were mentioned more frequently in 1994 than 2007. Although 10% of the respondents thought that their organisation/company was damaging the environment and 6% believed their own work to be harmful to the environment, a large share of the respondents were unable to assess the environmental impact of their activities. The main perceived sources of environmental damage included the creation of environmentally hazardous waste and the pollution of the water, the air or the soil. Compared to 1994, the indicators related to the environmental

hazards posed by companies have fallen somewhat. Statistically, the respondents' assessment of their personal activities is almost the same as it was 13 years ago.

Most respondents are of the opinion that the *greatest responsibility for the protection of the Estonian environment* is borne by the government and the appropriate state authorities (79%), Estonia's inhabitants themselves (67%) and local governments (45%). The prevalent opinion among the population is that the government and the Riigikogu take environmental needs into account to a certain extent in their decision-making process (42%), while 9% of the respondents believe that environmental considerations play an important role in the case of all decisions. This signifies an important shift compared to the 1994 results, when the largest percentage of respondents (46%) thought that environmental needs were not being taken into account in the decision-making process (37% of the respondents thought so in 2007).

The majority of respondents, i.e. more than 50%, believe that the impact of civil society organisations on the solution of environmental problems at both the local and state levels is rather significant. The most common opinion regarding the activities of Estonia's environmental organisations was that the societies could be more active (according to 48% of the respondents). Only 5% of the respondents thought that civil society organisations were active and sensible enough in terms of their activities.

Although most of the respondents (59%) agreed that Estonia should participate in solving the world's environmental problems, considerably fewer people than before were of the opinion that we should significantly increase our contribution in this regard (16% in 2007, compared to 41% in 1994). A quarter of the respondents thought that we should take care of our own problems first (compared to 12% in 1994). Compared to the 1994 results, people's willingness to provide third countries with environmental aid had decreased somewhat by 2007 (55%), although more people were content with providing reasonable assistance in 2007 than 1994. However, there had been a considerable increase in the proportion of respondents (16%) who said that every country should take care of itself (compared to 9% in 1994).

The environment versus the economy

The majority of the population (65%) were of the opinion that economic growth and environmental protection should be viewed as equally important, while 22% believed environmental protection to be more important. These proportions are similar to the 1994 survey results (65% and 23%, respectively). A total of 19% of the respondents would be prepared to pay more for environmentally friendly goods and services and 9% would like to pay more taxes in exchange for improved environmental protection. Most respondents are cautious with regard to these ideas. Most people would be willing to accept a price increase of no more than 5% and a 1% tax hike, if increases had to be made. In 1994, the choices were somewhat different and 12% of the respondents were ready to accept an increase in the price of goods and services. The 1994 survey did not contain any questions about environmental taxes.

The phrase "sustainable development" was familiar to 60% of the respondents. In the case of multiple choice questions, the respondents mainly explained the meaning of the phrase as the protection and sustainable use of the natural environment (55%) and balanced development, where economic growth does not bring about environmental or social problems (48%). The opinions of the population were rather divided with regard to the future of oil shale. However, the largest group of respondents (34%) supported the opinion that oil shale extraction should be reduced and the resource should only be mined for use in Estonia. While in 1994 only 2% of the respondents believed that mining should be discontinued gradually and renewable sources of energy should be developed, the percentage of people who favour this approach had reached 23% in 2007.

Respondents were predominantly opposed to the construction of a nuclear power station in Estonia or in one of our neighbouring countries. The construction of a nuclear power station in Estonia was favoured by 16% and opposed by 69% of the respondents, while 34% of the respondents were in favour and 44% opposed to construction in a neighbouring country. Compared to 1994, however, the percentage of people who favour the construction of a nuclear power station in Estonia has increased to a certain degree (the corresponding figure in 1994 was 6%). The main arguments of people who favoured the construction of a nuclear power station in Estonia included the reduction of pollution resulting from the production of energy and the improvement of the state of the environment in North-Eastern Estonia (primary reason in 59% of the cases). Our high electricity needs were also given as a reason for the need to build a nuclear power station (55%). Respondents were also quite enthusiastic about reducing Estonia's energy dependence on Russia (40%). The main reasons provided by people who oppose the construction of a nuclear station in Estonia were the lethal results of accidents (72%) and the environmental risk involved in the landfilling of waste (45%). In the case of the construction of a nuclear plant in a neighbouring country, the proponents mostly believed that the distance of the power station would reduce environmental risks, while the opponents did not believe that the distance would be sufficient to allow us to escape the consequences of potential accidents.

While most of the respondents (56%) believed that Estonia had enough ecological reserves, 33% would have liked for more reserves to be created. The majority of respondents (62%) did not consider ecological reserves to be impediments to the economy or local business and just 9% held the opposing view.

Environmentally clean and indifferent consumers

In the 2007 survey, most of the population (53%) thought of themselves as reasonably environmentally clean people who take environmental needs into consideration from time to time. Of the respondents, 9% claimed that they rarely consider environmental needs when making decisions. The most common reason for people not being as environmentally conscious as they would like to be was the absence of opportunities for environmentally clean behaviour near their home or the lack of information (38%). A total of 21% of the respondents thought that the impact of their activities on the environment was not significant enough to merit making any changes.

According to the respondents, the awareness of the population regarding environmentally hazardous activ-

ities is very high and has grown considerably compared to 1994, especially with regard to handling used batteries and burning car tires in bonfires. However, people knew almost as little of the environmental hazards posed by the production of white paper bleached with chlorine in 2007 as they did 13 years earlier (in 1994, 32% of the respondents were aware of the environmental dangers, compared to 34% in 2007). Environmental awareness is expressed most frequently through purchasing local (Estonian) products (47% of the respondents do this often) and sorting waste. At the end of 2007, the most frequently sorted waste was packages that could be returned in exchange for deposits (69%). When buying goods in stores, most people study their composition or how natural they are, but few people (less than a third) do this frequently. Even fewer respondents (12%) usually check the items they buy for ecolabels. The lack of attention to these details stems from the small lettering and people's lack of time.

The results of the survey reveal a more optimistic attitude towards the present and future state of the environment in Estonia as well as people's own health. In addition to Estonian respondents, the positive attitude is also apparent (albeit to a somewhat lower degree) in the case of non-Estonian respondents. Just as in 1994, people aged 40–49 were the group that proved to be the most active and informed about environmental issues in 2007. Carefree, indifferent or critical attitudes regarding environmentally clean behaviour, environmental concerns or the state of the environment were mostly exhibited by young respondents between the ages of 15 and 19. Pensioners who might have considered the environmental situation overly hopeless in 1994 have regained their active attitude towards Estonia's environment. The sense that everybody's awareness and personal input are required for protecting the environment gained ground during the 13 years between 1994 and 2007.

2.8. Summary

The development of Estonia as well as the majority of other countries has mainly been assessed and shaped according to economic growth (the GDP). However, in addition to economic capital, the wealth of a society also stems from human capital and environmental capital, i.e. the so-called soft assets. The limited value of GDP as a measure of success for societies has been discussed for decades and several additional ("sustainable development") measurement criteria have been developed in order to assess and compare societies' actual long-term capacity for development. The creation of various means of measurement and indexes has been especially popular during the past decade. Researchers have adopted the competitiveness index, the innovation index, the human development index, indicators such as the ecological footprint and biological capacity, the sustainable society index, the extended national wealth and sustainable saving indicator, etc. The wealth of indicators and indexes has presented their users and the collectors of data with a challenge by making it more difficult to choose between the available options. The question of how to use these indicators for shaping policy at both international and domestic levels has become an issue unto itself.

It has been stressed in several recent reports and addresses issued by the European Commission that environmental and social indexes should be adopted as measurement criteria in addition to the gross domestic product. Reporting should focus more on consumption and income, rather than production, and consumption and incomes should be discussed in relation to wealth (i.e. measurement "beyond the GDP"). The Commission has also suggested that accuracy in reporting be increased with regard to the distribution of profits and inequality in society. This also means that the statistics on social indicators and environmental impacts must become more accurate and must be collected and accessible on a considerably broader scale (gross domestic product is already being calculated on a quarterly basis).

The OECD Initiative on Assessing Social Development and the report by the International Commission on Measurement of Economic Performance and Social Progress chaired by Nobel Prize winner J. E. Stiglitz[11] also highlight the main problem: how to link the issues of economic growth, the development of the quality of life, and environmental awareness? How can the assessment of social development be shifted from the production-based approach used until now to an approach that takes into account consumption and people's incomes as well as household wealth? More attention has to be devoted to the distribution of income, consumption and wealth; there should be more focus on social inequality; additional consideration must be given to activities outside the marketplace; population surveys on the quality of life must be conducted and new indexes that reflect the quality of life must be prepared in order to carry out international comparisons. Long-term development indicators should describe both the availability of various natural resources and the changes therein. The determination of maximum limits and critical margins has also become important, especially in the case of environmental indicators.

Additional indicators (including composite indexes) must also be adopted for planning Estonia's long-term development and carrying out development visions, since changing the GDP-based paradigm has become a key issue in progress evaluation and management. Estonia's actual and extended national wealth and assets (including human capital, natural resources, ecosystems) must be assessed and registered. Furthermore, the corresponding asset, investment and depreciation flows must be expressed. Estonia's quick development in the field of information technology has created the conditions necessary for a considerable increase in the quality of management skills, which should be used to an even greater extent in creating a system for assessing Estonia's long-term development. It is time to give a new meaning to Estonia's development based on the principles of the quality of life and sustainable development, and admit that development does not equal just GDP growth.

[11] Measurement of Economic Performance and Social Progress (2009), Measuring the Progress of Societies, www.oecd.org/progress

CHAPTER 3

Regional development and the human environment

This chapter contains an analysis of the differences between Estonia's regions in terms of socio-economic development and the regional development trends that have emerged in recent years. The chapter also focuses on the impact of regional policy on regional development and discusses the suitability of the country's administrative-territorial organisation for achieving the regional policy objectives adopted in order to ensure the wellbeing of the population.

3.1. Introduction. Nature of regional development and regional policy challenges

From the standpoint of an individual, a region is a complex and multilayered human environment. Regional socio-economic development is expressed in the wellbeing and affluence of the population, the state of the economy (e.g. productivity, economic structure), as well as other important aspects of social life, such as the quality and availability of services of the status of public infrastructures. Regional differences inside a country in terms of socio-economic development affect people's opportunities for self-realisation as well as their identity and lifestyle. Although people can contribute to local development and thereby improve the quality of their environment, regional differences still have a considerably stronger and more lasting impact of the situation than the inhabitants' individual efforts towards change. It is much easier for people to improve their human environment by changing their residence, instead of working to increase their native region's level of socio-economic development. However, emigration from regions that offer an environment that is not suitable for their inhabitants reduces local development potential even further since the people who emigrate from the region usually tend to be younger, more active and better educated. The trend of people leaving regions where the level of development is lower for regions that offer better work and study opportunities and generally, a better human environment is characteristic of many countries, including Estonia (see Tammaru, Kulu 2003; Tammaru, Leetmaa 2007).

Differences between the levels of development of regions are expressed most clearly through comparisons between regional levels of development at different points in time and between the regions themselves. The extent of the differences in the level of development in the regional system is the central issue of the analysis of regional development. Such analyses commonly focus on countries, groups of countries (e.g. the European Union), or the world as a whole. The reduction of differences inside a regional system (convergence) is considered a positive development, while an increase in differences (divergence) is seen as negative. The most popular definition of regional development, which is also the basis for the Regional Development Strategy of Estonia, looks at the issue from the standpoint of a regional system as a whole, examining the territorial balance of its socio-economic situation.

Research indicates that while differences are generally becoming smaller between European countries, including a decrease in the rift between Western and Eastern Europe, the differences inside countries are, instead, becoming greater (Paas, Schlitte 2006; Heidenreich, Wunder 2008; Hoffmeister 2009). Due to the globalised and technology-centred nature of the economy, development tends to be faster in urban regions, which form the core areas of socio-economic networks and are characterised by good research and development and transport infrastructures, qualified workers, and knowledge-intensive services.

The differences in the socio-economic development of regions are influenced by both internal and external factors (Nischalke, Höllmann 2005). The most important external factors include: geographical distance from core regions of development; the position of the centre of the given regional system in the hierarchy of a higher-level regional system – for example, in the case of Estonia as a regional system, the position of Tallinn among the capitals of the Baltic Sea region and in the network of large cities of the EU; location in relation to (political, cultural, natural) borders and the transparency of these borders; the level of development of neighbouring regions (including other countries); the (regional) policy of actors outside the regions (e.g. the EU regional policy in the case of Estonia as a whole, Estonian national regional policy in the case of counties, cities and rural municipalities).

The significance of internal factors in terms of regional development is emphasised by endogenous growth theories. According to these theories, socio-economic development is heavily dependent on the local education system and the region's human capital, but also on the history of the region, its former social, political and economic systems and the changes that occurred in such systems (Martin, Sunley 2006). For example, earlier European Union development documents specifically stress the handicaps

of post-socialist countries resulting from the negative legacy of the socialist planned economy and undemocratic political regimes.

The so-called new regionalism school of economic geography, which is based on institutional economics, offers a new approach to studying the endogenous growth factors of regional development (Thrift, Amin 1995; Storper 1995; Amin 2004). The representatives of this school of thought consider the institutional development of countries and regions, which they describe as "institutional thickness", to be the key to regional development. Institutional thickness refers to the complete set of social, cultural and institutional forms and effects which includes specific organisations, associations, leaders, cooperation networks and social partnership agreements. Special attention is given to the significance of regional governance structures as a factor that shapes institutional thickness. Differences in regional development are explained by variations in countries' institutional thickness.

Although certain regional differences are inevitable in light of the theories described above, uneven and unbalanced development is considered to be a social problem that requires solutions and is a challenge for public policy. As such, regional development differences are the object of a specific area of policy – regional policy.

Regional policy based on the institutionalist perspective of regional development stands in contrast to the Keynesian compensatory regional policy which involves income redistribution and the stimulation of less developed regions by the state. It also differs from the neo-liberalist approach. The latter is based on the assumption that market forces will eventually lead to the disappearance of regional differences. The type of regional policy under discussion here aims at mobilising the inherent potential of the regions and favours bottom-up, region-specific, long-term approaches that are pluralistic in terms of the planning and implementation of the development. The objective is to create broad-based regional and/or local "institutional thickness" by taking into account the local context and the region's path dependency (Amin 2004; Amin, Thrift 1995). The concept of institutionalist regional development also complies with the more recent notion of regional policy which, instead of focusing solely on reducing the handicaps of less developed regions, aims at working with the more developed regions in order to create the conditions necessary for realising their development potential (HM Treasury 2003).

Regional policy geared towards the better use of inherent potential for development deals with the so-called natural, well-established socio-economic and administrative regions which, in the case of Estonia, primarily include counties, cities and rural municipalities. Compensatory regional policies, on the other hand, are implemented in the case of rural or urban regions facing specific development problems identified on the basis of certain characteristics and settlement system areas that require special attention due to their similar function (e.g. islets, frontier regions, regions with large minority populations, single-purpose mining regions, etc.).

In addition to shaping regional and local institutions, the new type of regional policy focuses on the following: ensuring a clear national vision and framework for the development of the entire country's regional system; sharing responsibilities between the state, regional and local levels; concentrating on the key agents and factors of development, including urban areas as the driving force behind development. The measures considered especially important are related to labour productivity and competitiveness, the development of people's knowledge and skills, and public services that support business and the wellbeing of the population. The presence and strength of the public sector as well as its contribution to regional development is valued from two aspects: firstly, as the initiator and catalyst of socio-economic development and, secondly, as the organiser and provider of services that shape the quality of people's immediate human environment. Experts believe that socio-economic development also requires that regions be provided with macroeconomic support, a secure revenue base, and, in case of need, financial support.

3.2. Regional differences of socio-economic development in Estonia

Socio-economic development affects the quality of the human environment at all regional levels. In Estonia, units of local government (cities and rural municipalities) and counties exhibit the greatest institutional thickness and occupy a central role in regional policy which is based on identifying and strengthening the inherent development potential of the regions. The cities, rural municipalities and counties are also responsible for providing people with the majority of public services. The availability and quality of these services are largely dependent on the institutional strength of the regions in questions and plays a significant role in determining the quality of the human environment.

Significant differences in the human environment, a result of Estonia's unbalanced regional development, are best understood through a comparison of rural settlements and cities in which the units of local government are divided into groups on the basis of their location in urban regions and in relation to the centres of urban regions. The latter comparison is based on the classification established by Jussi S. Jauhiainen (2002) for evaluating the potential of Estonia's urban regions. This classification distinguishes between 12 Estonian urban regions with centres in Tallinn, Tartu, Narva, Kohtla-Järve, Rakvere, Haapsalu, Kuressaare, Pärnu, Viljandi, Valga, Võru, and Paide. The spheres of influence of the urban region centres are defined by the work-related commuting range – 25% of the employees of local government units are people who commute to work in the centre of the urban region. These are the most recent criteria available for identifying Estonia's urban regions. The so-called NUTS 3

level[12] regional distribution is used as a basis for comparing Estonia's regional development with the more general European trends.

The data available on the various aspects of regional socio-economic development indicates that Estonia is characterised by large regional differences in the European context. Both absolute as well as relative indicators show that Estonia's economy is very strongly concentrated in the region of the country's capital. In addition to Harju County, Tartu County is the only other region where the relative level of development of the main factors related to the regional economy and its productivity (the population's level of education, state of health, value and nature of work) in the regional system has increased.

The regional differences in people's employment rates and incomes are somewhat smaller in Estonia as regional balance has increased in this regard over the past few years. The existing data on registered unemployment levels and wages supports the assumption that the economic crisis will not interrupt this balancing trend, at least in the short term.

Regional distribution of the gross domestic product

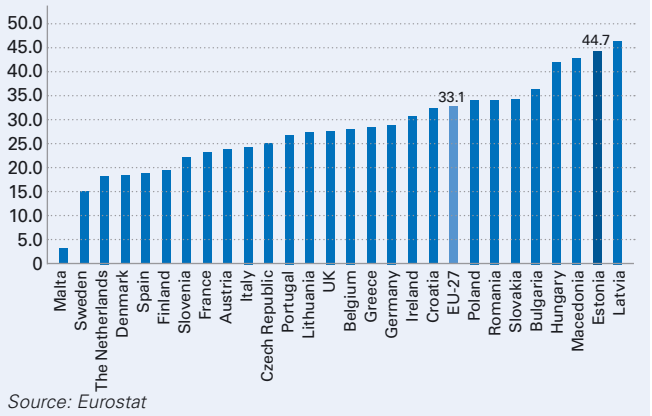
Traditionally, gross domestic product (GDP) per capita has been used as the most general indicator of socio-economic development. The extent of Estonia's regional differences in comparison with other European countries can be described with the help of the regional GDP dispersion indicator. The regional GDP dispersion of countries is calculated as the sum of the absolute differences in relative GDP (per capita) at the regional and state levels, weighted by the proportion of the population and expressed as a percentage of a country's GDP per capita.

The data provided by Eurostat in 2006 indicates that based on relative GDP, Estonia has one of Europe's highest levels of inequality in regional development (44.7%) (see Figure 3.2.1). Latvia is the only country in Europe where differences in regional development are even more pronounced. The calculations made by Eurostat also reveal that regional differences tend to be larger in Eastern European countries than countries in Western, Southern and especially Northern Europe. At the same time, Lithuania's level of regional differences is lower than the European average. Among all former socialist countries, Slovenia exhibits the fewest regional differences.

During the period 1996–2006, the dispersion of the regional generation of wealth in Estonia increased 50%, i.e. by 15 percentage points. Countries, where the rate of growth has been similar include, for example, Latvia and Ireland, while Lithuania has exhibited a much faster increase (140%).

A comparison of Estonia's counties, i.e. the regions with the most highly developed socio-economic and administrative

Figure 3.2.1. Regional GDP dispersion at the level of the NUTS 3 regions in 2006



Source: Eurostat

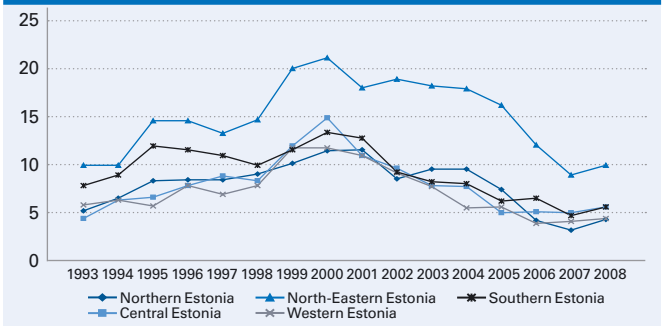
structures, reveals a clear distinction between the other counties and Harju County, where the GDP per capita is 1.6 times higher than the national average. No other county besides Harju County exceeds the national average indicator in this regard. Between 1996 and 2006, Harju County's lead over the rest of the counties as well as the national average grew by 18 percentage points. Regional polarisation is also clearly demonstrated by the fact that, barring Tartu County (which exhibited an increase of 6%), the relative GDP of all other counties decreased in relation to the national average over the course of the period in question. The largest decrease compared to the national average occurred in Hiiu County where the relative GDP fell by no less than 30 percentage points.

The large lead of the capital city region over the rest of the country in terms of economic development is not uncommon in smaller (Eastern) European countries. Thus the relative GDP of the capital city region as compared to the national average is even higher in Slovakia and Latvia. Lithuania is also quickly gaining on Estonia in this regard. There are, of course, many small countries (e.g. Slovenia, Ireland, Finland and Denmark), where the difference between the average GDP of the capital city region and the national average is considerably smaller, amounting to just 10–20%.

The very large relative importance of the capital city region in the absolute GDP level is a feature characteristic of Estonia and several other smaller countries. As of 2006, Harju County accounted for 61.1% of Estonia's total GDP. The contributions of all other counties are lower than 10% (Tartu County holds second place with 9.7%) and eight of the counties provide less than 2% of the country's GDP. This also means that the socio-economic development of

[12] The European Union has a hierarchical system of territorial units, which consists of three levels of nomenclature units of the territorial system (i.e. NUTS levels) and two local authority unit levels (LAU levels). According to the EU system of territorial units, the socio-economic and administrative regions that follow the level of the state in Estonia's regional system – counties – are LAU1 units, i.e. local administrative authorities. Counties do not have local authority status in Estonia's administrative arrangement. LAU2-level units include Estonia's cities and rural municipalities. There are approximately 100,000 LAU-level territorial units in Europe and the units are not subject to any common regular statistical measurements. Thus, the opportunities for comparing the regional development of countries at the lower levels are limited. EU statistical reports and the policies based thereon usually describe the differences in regional development using the NUTS 2 level which, in the case of Estonia, encompasses the entire country. At the NUTS 3 level, Estonia has been divided into five statistical regions. This is also the division used by Statistics Estonia in its analyses, although the regional units are not separate entities in a socio-economic sense, nor in the sense of the county's administrative-territorial organisation. In this chapter, the NUTS 3 level has been used as the basis for most of the comparisons. Estonia's counties belong to the five NUTS 3 regions as follows: 1) Northern Estonia: Harju County; 2) North-Eastern Estonia: Ida-Viru County; 3) Western Estonia: Hiiu County, Lääne County, Pärnu County and Saare County; 4) Central Estonia: Järva County, Lääne-Viru County and Rapla County; 5) Southern Estonia: Jõgeva County, Põlva County, Tartu County, Valga County, Viljandi County and Võru County.

Figure 3.2.2. Annual average level of unemployment in NUTS 3 regions



Source: Statistics Estonia

the country as a whole depends to a great extent on the development of the capital city region and that the sustainability of the development is very much at risk.

One of the objectives defined in the Regional Development Strategy of Estonia is ensuring that the relative importance of Northern Estonia in the national GDP does not exceed 70% by 2015. As of 2006, this indicator already stood at 64.2%. The danger of surpassing the 70% limit therefore exists in the case of linear projection. The actual result will be largely determined by the impact of the current economic crisis on the development of the regions as well as the specific regional features that will manifest themselves when the country exits the crisis.

Employment and unemployment

The participation of the population in economic development is illustrated by the employment rate. The percentage of employed people between the ages of 15 and 74 varies greatly from one region to the next. The general rate of employment of the population varies between the counties by 23 percentage points, ranging from 48.0% (Põlva County) to 70.6% (Hiiu County). Employment rates tend to be lower in the counties of South-Eastern and Eastern Estonia.

Differences between counties have increased during the past twelve years (1997–2008). In 1997, the difference between the counties with the highest and lowest indicator was 14.2 percentage points. However, this tendency is not universal, since recently, employment rates have been rising relatively quickly in several counties that used to have low employment rates. The differences persist mainly due to the increase in the employment rates of leading counties, rather than the deterioration of the situation in counties that are performing less well.

Differences between counties are even greater in the case of the employment rates of young people between the ages of 15 and 24 and have recently exhibited a troubling increase. Another record in regional inequality was established in the year 2008, when the difference between the counties with the highest (Harju County) and lowest (Valga County) rates of youth employment grew to 30 percentage points, since the situation in the county with the highest employment rate improved, while the county with the lowest employment rate encountered further setbacks.

Unemployment trends have been very consistent in the NUTS 3 level regions and at the county level between 1993 and 2008. The unemployment rate of North-Eastern Estonia has steadily exceeded that of other regions more than twofold (see Figure 3.2.2). At the county level, unemployment has also consistently been higher in the counties of South-Eastern Estonia. In Southern Estonia, the high unemployment rate of the other counties is mitigated by Tartu County, which has one of the lowest unemployment rates in Estonia. The annual average level of unemployment in rural settlements and cities has levelled off in recent years (see Map 3.2.1).

An analysis of registered unemployment at the level of local government units indicates that during the period 2005–2008, the general unemployment rate dropped below 5%. Unemployment was lowest in the sphere of influence of the centres of urban regions, averaging below 2%. While at the beginning of 2008, an increase in registered unemployment rate was only apparent in the centres of urban regions, there has been a quick rise in the unemployment rate throughout the country as the economic crisis has progressed. The largest increase in the registered unemployment rate between October 2008 and October 2009 occurred in local government units belonging to the sphere of influence of urban region centres (with the unemployment rate in these areas rising 2.7 times), which had the lowest unemployment rate just one year ago. The growth of the unemployment rate has been slower in urban region centres themselves as well as units located outside of urban regions. In these areas the unemployment rate has increased 2.3 times.

A short-term homogenising trend is also apparent when we look at counties. In Harju County, where the overall level of unemployment has consistently been one of the lowest in the country, the unemployment rate has grown more than four times (from 7500 to 32,000 unemployed individuals), while in Ida-Viru County and South-Eastern Estonia, where the level of unemployment has traditionally been higher, the registered unemployment rate has increased just 2.3 times in the course of a year. Despite the afore-mentioned short-term homogenisation of regional development, Harju County still has one of the lowest rates of unemployment in Estonia, only Tartu County and Jõgeva County have lower unemployment rates.

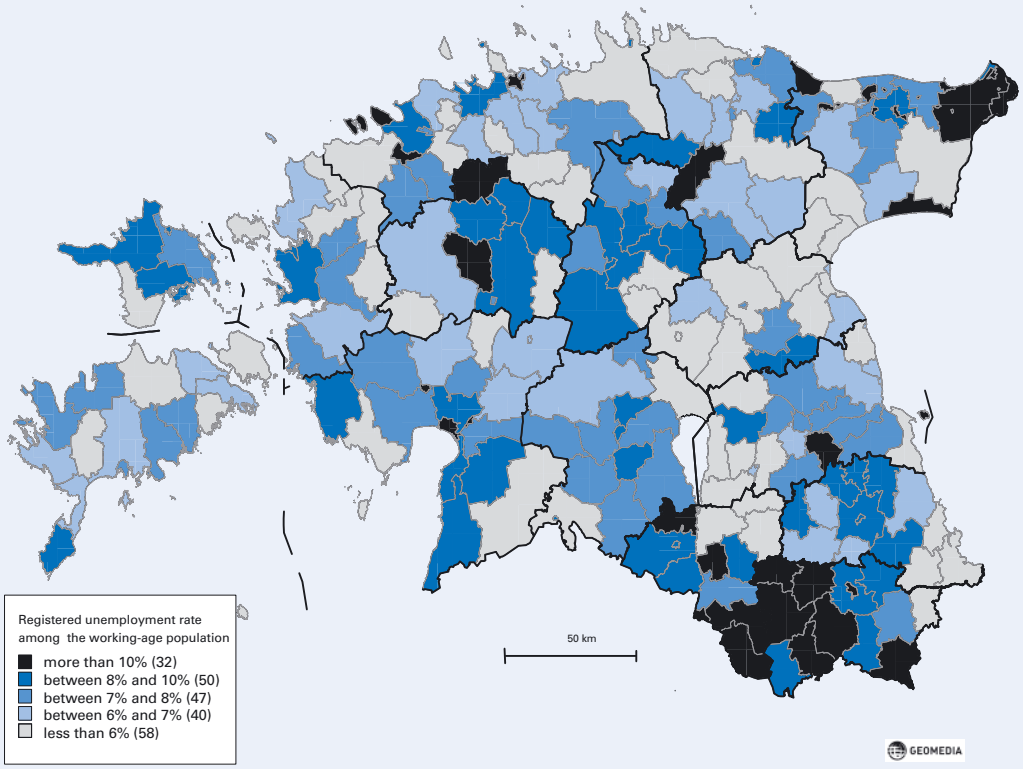
Availability and value of jobs

The employment of the population is tied directly to the availability of jobs. If we divide the number of people for whom their employers have paid social tax as registered by the Estonian Tax and Customs Board with the number of people aged between 15 and 64, there are significant regional differences on both local government unit and county levels. Among counties, Harju County is once again in the best position (see Map 3.2.2). Lääne Viru County and Valga County, on the other hand, experienced the fastest drop in the availability of jobs during the period 2005–2008.

The largest number of jobs was available in urban regions and especially in the centres of urban regions. Since the years of economic growth improved the availability of jobs relatively equally in all local government units, the differences between urban region centres, the neighbouring local government units and the local government units that do not belong to urban regions did not change significantly in terms of the availability of jobs (see Figure 3.2.3).

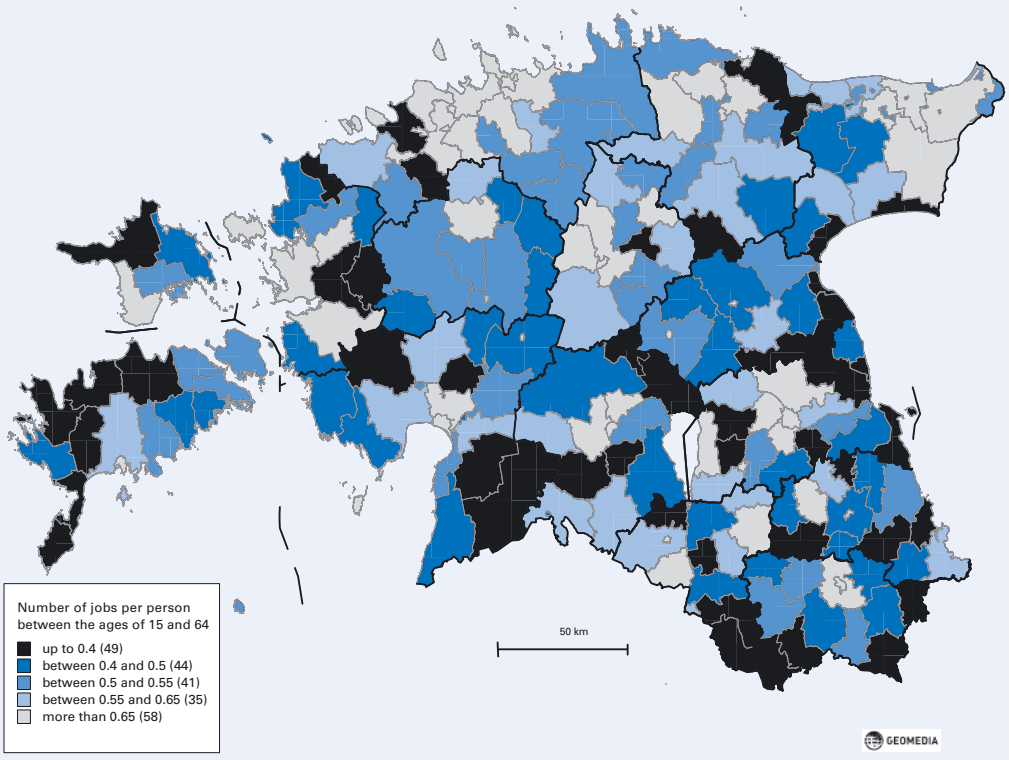
A clear regional hierarchy also exists with regard to the value of jobs (which is indicated by the amount of social tax paid for the employee by the employer). The best paid jobs are located in the centres of urban regions, while the lowest paid jobs are commonly found in local government units located outside urban regions (see Figure 3.2.3). The average

Map 3.2.1. Registered unemployment rate in cities and rural municipalities as of 31 October 2009



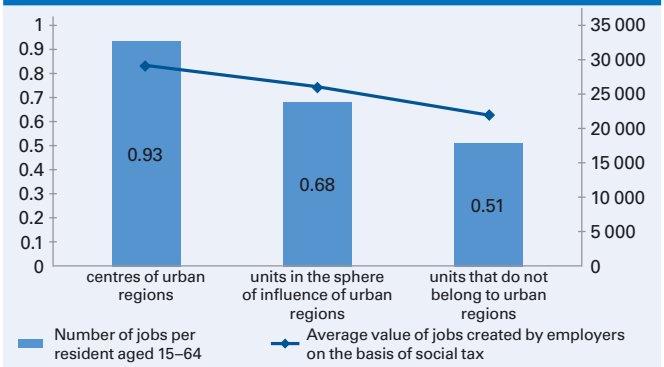
Source: Statistics Estonia

Map 3.2.2. Number of jobs created by employers in cities and rural municipalities per person between the ages of 15 and 64



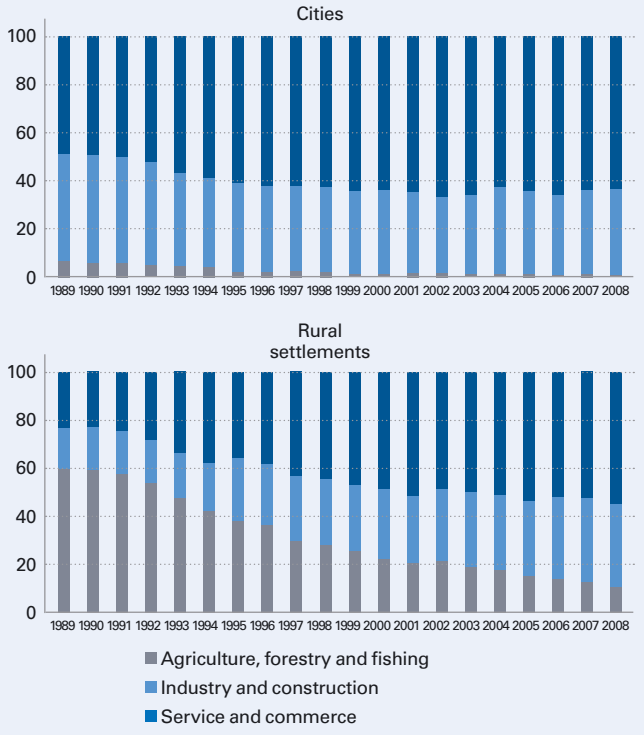
Source: Estonian Tax and Customs Board

Figure 3.2.3. The number of jobs created by employers per person between the ages of 15 and 64 and the average value of a job (expressed in Estonian kroons) based on the amount of social tax paid



Source: Estonian Tax and Customs Board

Figure 3.2.4. Percentage of employed people in cities and rural settlements by areas of activity



Source: Statistics Estonia

value of created jobs calculated on the basis of local government units is the highest in Harju County (where an average of 19,600 EEK of social tax is paid annually per employee) and the lowest in Põlva County (12,800 EEK).

The nature of work

The nature of work, contingent on the sector-based structure of employment, has changed most fundamentally in rural settlements (see Figure 3.2.4). In total, the relative importance of agriculture in the employment of the population of rural settlements has decreased from 60% in 1989 to 11% in 2008. In urban settlements, the stabilisation of the structure of employment occurred earlier, during the mid-1990s. As of that time, the service sector has provided 60–65% of the employment in the case of the population of urban settlements, while the construction sector has accounted for 30–35% and agriculture for less than 2% of the employment.

The decrease in the number of agricultural jobs available in rural areas and the general rise in the importance of the service sector in Estonia have harmonised the nature of work across the counties. As of 2008, the role of agriculture in employment did not exceed 15% in any of the counties (agriculture had the greatest relative importance in Hiiu County – 14.3%), the percentage of employment related to industry and construction fell between 30% and 50%, and the service sector accounted for 44–68% of the employment. The service sector provides the largest share of employment in almost all of the counties (except for Ida-Viru County and Järva County, where it is barely surpassed by industry). The relative importance of the service sector is greatest in Harju County (68%) and Tartu County (66%) and lowest in Järva County (44%). The fastest growth in the relative importance of the service sector between 1990 and 2008 occurred in Lääne County and Võru County, both of which experienced an increase of 31 percentage points. The industrial sector accounts for the smallest percentage of jobs in Tartu County (30%) and the largest percentage in Ida-Viru County (50%).

An international comparison reveals that regardless of the growing trend, there are still approximately 10% fewer service sector jobs in Harju County than in the capital city regions of the Nordic countries, where the structure of employment is considerably more stable. Latvia and Lithuania are exhibiting a similar quick growth of the service sector, although the percentage of service sector jobs is still lower in the urban regions of Riga and Vilinius than in Estonia's capital city region.

The percentage of white-collar jobs varies from 28% to 55% from county to county. The number of white-collar jobs has increased mainly in Tartu County and Harju County, where at least half of all jobs belong to this category. In 2008, the percentage of white-collar jobs was lowest in Hiiu County (28.7%) and also remained below 35% in several other counties. Thus, the statistical data on counties points to the growing polarisation of the quality of employment of Estonia's population between Harju County and Tartu County on the one hand and the rest of the counties on the other.

People's incomes

The nature of the work people do also determines their average gross income level. As can be expected, gross wages in 2000–2008 have consistently been higher in Harju County than in any of the other counties. At the same time, Harju County's wage increase rate has been one of the slowest in the country (incomes grew 2.4 times during the period in question). Tartu County, Põlva County and Võru County have shown the largest increase in gross income (the average gross wage has tripled in these regions). This means that the past decade has primarily been a time of lessening regional differences in terms of the income levels.

A comparison of the data for the 3rd quarter of 2008 and 2009 indicates a general drop in gross income across the country and does not point to a systematic increase in regional differences between counties. However, the trends that affect counties are different. According to the data from the 3rd quarter of 2009, Jõgeva County, which experienced the sharpest decrease in average gross income, also has the lowest average gross wages in the

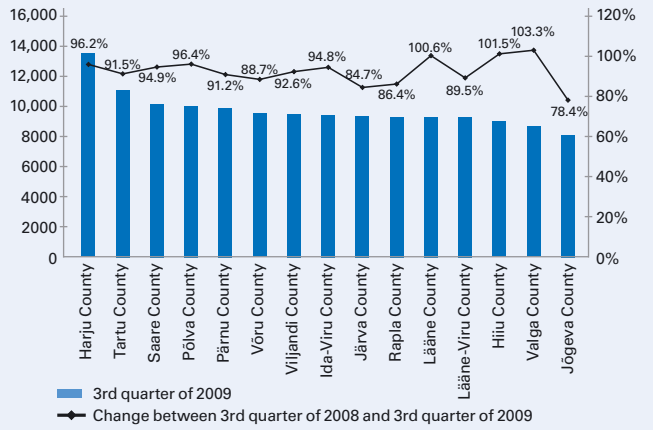
country. On the other hand, every one of the three counties that showed an increase of average gross income over the year belongs among the group of counties with lower average gross incomes (see Figure 3.2.5).

In 2009, the population's average relative levels of income per capita, calculated on the basis of the income tax paid into the local budgets according to the databases of the Tax and Customs Board and the pensions recorded in the registers of the Pension Board, were at the same level in centres of urban regions and the immediate hinterlands of urban regions (78,000 EEK per person annually). However, the indicators of the urban regions surpassed the average relative income levels of local government units outside urban regions by 13 percentage points (the average figure in the case of the latter regions was 68,000 EEK per person). The existing situation has definitely been influenced by the increase in commuting, since the urban sprawl has caused many families to move to rural municipalities near cities or even to more distant rural areas, while the jobs have mainly remained in the centres of urban regions. Seeing as the increase of the average income level during the period 2005–2008 has been slowest in urban region centres and fastest in local government units outside urban regions, the general trend points to the regional equalisation of incomes.

However, the income differences between different counties continue to be large (see Map 3.2.3). The difference between the average annual income in the county with the highest indicator (Harju County with 98,000 EEK per capita) and the county with the lowest indicator (Valga County with 63,000 EEK per capita) is 55%. Since the income increase of the inhabitants of Harju County has been the smallest of all the counties, there has been some decrease of regional inequality in the medium term.

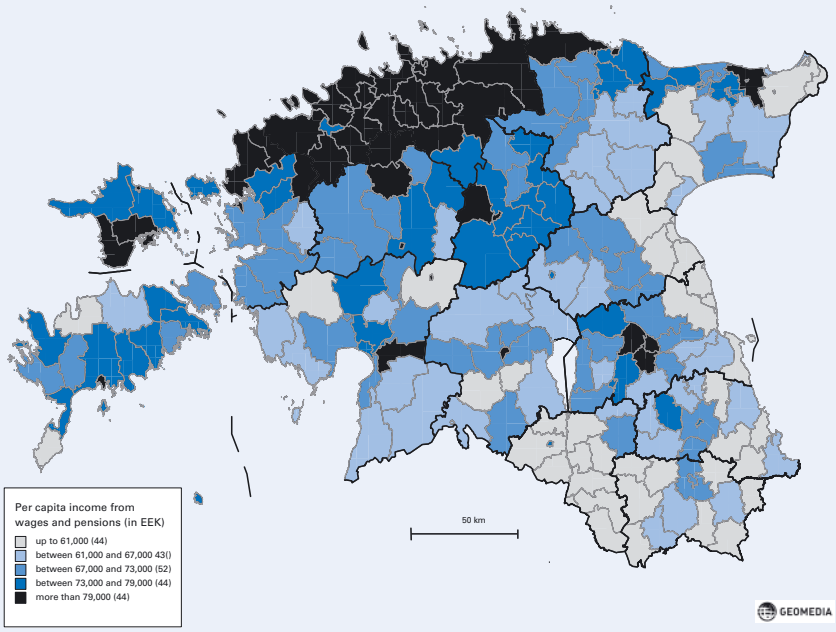
The regional inequality in the levels of income also creates regional differences in terms of the distribution of the population into income quintiles. Compared to the other regions, Northern Estonia is also in the best position in this regard. The greatest differences are apparent in the case of Northern and North-Eastern Estonia: while in 2007, 29.5% of the population of Northern Estonia belonged to the fifth and highest income quintile, the same was true for only 7.1% of the inhabitants of North-Eastern Estonia. If we look at the situation from the opposite standpoint, we see that 32% of the population of North-Eastern Estonia belongs to the lowest income quintile, while just 11.5% of the inhabitants of Northern Estonia fall into the same category (see Table 3.2.1). However, the developments that occurred between 2003 and 2007 do point to a decrease in regional differences. The regional trends point to different directions – polarisation has occurred in North-Eastern and Central Estonia (membership has grown both in the highest and lowest quintile), while in Northern Estonia, to the contrary, the percentage of people belonging to the middle quintiles has increased and the relative importance of the extremes has decreased. The developments in Southern Estonia can be seen as the most positive, since as the percentage of people in the highest income quintile has grown simultane-

Figure 3.2.5. Average gross income in counties during the 3rd quarter of 2009 and changes over the course of a year 2008–2009



Source: Statistics Estonia

Map 3.2.3. Per capita income from wages and pensions in 2008



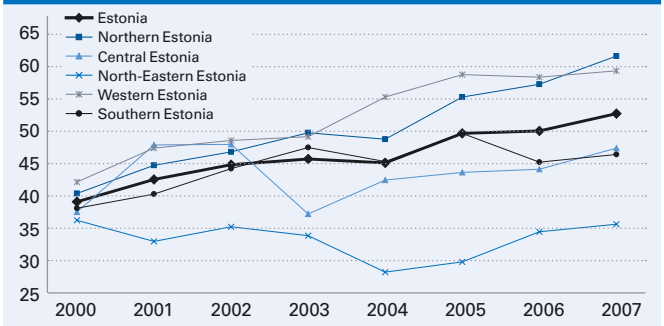
Source: Estonian Tax and Customs Board, Pension Board

Table 3.2.1. Distribution of regional populations by income quintile

	Northern Estonia			Central Estonia			North-Eastern Estonia			Western Estonia			Southern Estonia		
	2003	2007		2003	2007		2003	2007		2003	2007		2003	2007	
Lowest quintile	12.4	11.5	–0.9	21.1	24.3	3.2	29.4	32.2	2.8	21.2	24.3	3.1	25.7	23.1	–2.6
Second quintile	14.8	14.5	–0.3	21.7	19.2	–2.5	26	26.7	0.7	23.9	22.6	–1.3	22.2	24.3	2.1
Third quintile	17.4	19.5	2.1	21.1	19.5	–1.6	23.9	20.3	–3.6	21.2	20.3	–0.9	20.9	20.6	–0.3
Fourth quintile	24.3	25	0.7	20.5	20.6	0.1	14.7	13.7	–1	18	17.8	–0.2	17	16.3	–0.7
Highest quintile	31.1	29.5	–1.6	15.6	16.4	0.8	6	7.1	1.1	15.7	15	–0.7	14.2	15.7	1.5

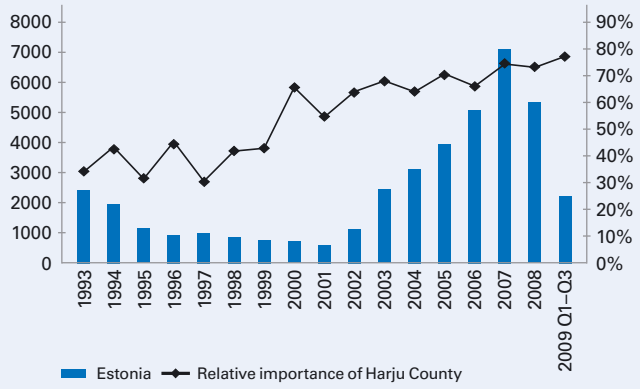
Source: Ramboll Eesti AS 2008

Figure 3.2.6. Percentage of dwellings in (at least) good condition by regions



Source: Statistics Estonia

Figure 3.2.7. Number of dwellings authorised for use between 1993 and 2009 and the relative importance of Harju County



Source: Register of Construction Works, Statistics Estonia

ously with a drop in the percentage of people belonging to the lowest quintile. Western Estonia is the only region where the percentage of people with the highest income has fallen and the percentage of lowest-paid people has grown.

Housing

In addition to income, the material aspect of individual human environment is also directly connected to housing, its spaciousness as well as its general state of repair and amenities. The improvement of people's living conditions is reflected by the addition of new accommodations. The dwellings of households living in rural settlements continue to be larger than those of city-based households. Homes that have more than one room per household member are owned by 55% of the people living in rural settlements and 41% of the people living in cities. A comparison of homes in rural and urban areas reveals that the situation with regard to the state of repair of the dwellings is the opposite. Although the state of repair of the dwellings has improved at a relatively equal rate in rural as well as urban areas, the percentage of dwellings in good condition is higher in cities (56%) than in the countryside (45%).

At the level of the NUTS 3 regions, the different availability of dwellings to households in rural settlements and cities is expressed by the fact that compared to the other regions, North-Eastern and Northern Estonia have fewer households that own more than one room per household member. In recent years, the improvement of the situation with regard to the state of repair of dwellings has been fastest in Northern and Western Estonia where the percentage of households with dwellings that are in good condition is also the highest (see Figure 3.2.6). Compared to the other regions, the state of repair of dwellings is clearly the worst in North-Eastern Estonia and there have been no significant changes for the better.

Regional differences are very large in the case of the construction and occupation of new dwellings. According to the Register of Construction Works, a total of 40,754 dwellings have been authorised for use between 1993 and the 3rd quarter of 2009, 63% of which are located in Harju County. During the past four years, however, the percentage of new dwellings in Harju County has crossed the 70% line (see Figure 3.2.7). Other regions where significant increases have occurred in terms of new dwellings include Tartu County (14% of all dwellings) and Pärnu County (8%).

Although the processes related to the urban sprawl have been at the centre of attention of the public as well as researchers, the largest number of new dwellings, in absolute terms, has been built in the centres of urban regions, compared to the settlements located in the hinterlands. Since 2002, at least 60% of the new dwellings occupied each year in Harju County have been located in Tallinn. The relative rate of the urban sprawl in the urban regions of Pärnu and Tartu was similar to the situation Harju County between 2003 and 2007 and has become higher during the past two years (see Figure 3.2.8). As the real estate market cools down, residential development is increasingly directed by the population's wishes and needs regarding the development of their human environment, rather than the terms offered by real estate developers, as was the case during the boom. People's preferences regarding the location of their home depend, among other things, on the established public policy goals and its efficiency of public policy in many fields (e.g. land and planning policy, transport policy, the availability of education as well as recreational and social services).

State of health

According to statistics, large regional differences exist in the case of the general state of health of the population. In North-

ern Estonia, 65% of the population consider their state of health to be good or very good, while only 37% of the inhabitants of North-Eastern Estonia think the same. Based on people's self-assessments over the course of the past five years, the state of public health has improved in all of Estonia's regions except for North-Eastern Estonia. The improvement has been most pronounced in Western Estonia, where the percentage of people satisfied with their health has increased by 9 percentage points (to 59%). North-Eastern and Southern Estonia stand out due to their inhabitants' low opinion of their state of health – in both regions, 20% of the population consider their state of health to be bad.

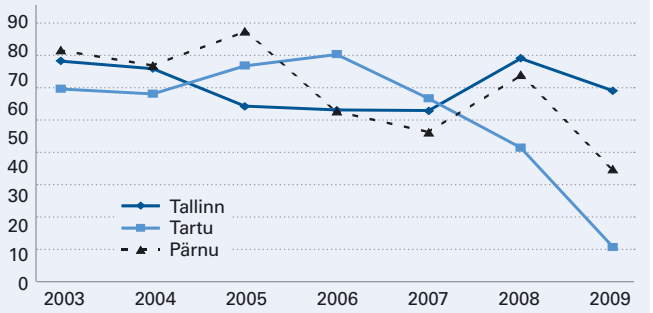
Similar regional patterns also appear in the case of the rate of occurrence of illnesses among the population. Among inhabitants who are 16 and older, 60% of the population of Põlva County suffer from long-term illness, compared to 28% of the population in Harju County. As a general tendency, the percentage of people with long-term illnesses is higher in South-Eastern Estonia and Ida-Viru County, which are also the regions where the illness rate increased the most between 2003 and 2008 (see Map 3.2.4).

The counties' initial incapacity rates also differ threefold. The frequency of occurrence of initial incapacity is highest by far in South-Eastern and Eastern Estonia and lowest in Northern and Western Estonia. The changes that occurred in relation to these indicators during the period 2000–2008 lack clear regional patterns.

Level of education

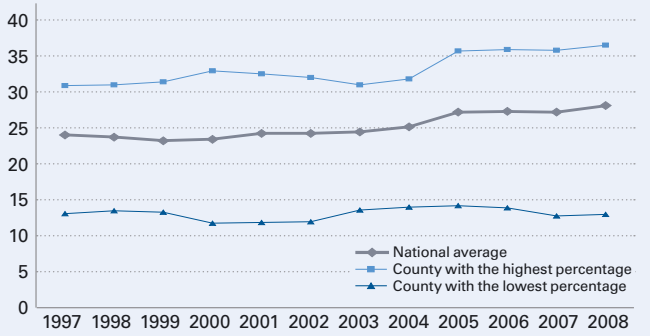
The regional educational inequality of the population is in conformity with the regional characteristics of economic development, the nature of work, and the provision of educational services. In 2008, there was a 2.7-fold difference between the counties in terms of each county's percentage of inhabitants aged from 15 to 74 who had completed tertiary education (professional secondary education, higher education) (see Figure 3.2.9). The percentage of people with higher education was highest in Harju County (36.2%) and lowest in Hiiu County (13.2%). The percentage of the population with tertiary education also exceeded the national

Figure 3.2.8. The percentage of new dwellings authorised for use in county centres between 2002 and 2009 (1st quarter – 3rd quarter)



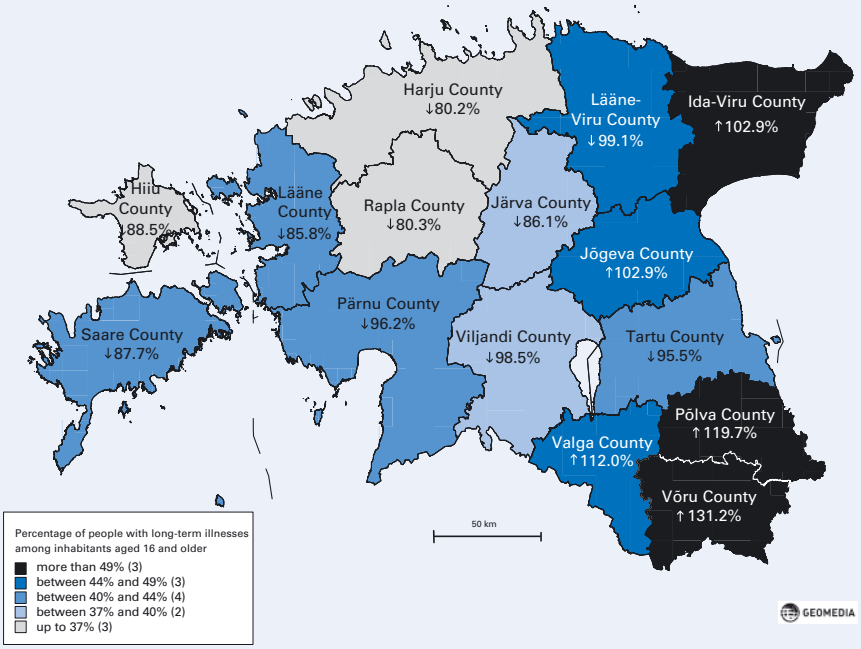
Source: Register of Construction Works

Figure 3.2.9. Counties with the largest and smallest percentage of people with tertiary education, 1997–2008



Source: Statistics Estonia

Map 3.2.4. Percentage of people with long-term illnesses among people aged 16 and older



Source: Statistics Estonia

average in Tartu County (31%). The growth of the percentage of people with tertiary education has been fastest in Võru County and Lääne County, although Harju County and Tartu County have a clear overall advantage in terms of the percentage of inhabitants with higher education and their lead over the rest of the country is increasing.

3.3. Estonia's regional institutional thickness

The understanding predominates in current regional policy that the key factor in the socio-economic development of regions is their institutional development, which is expressed as institutional thickness (Amin, Thrift 1995; Amin 2004).

The current situation in Estonia is characterised by large regional differences in institutional thickness, which are caused by many correlated factors. Estonia's administrative-territorial division creates the preconditions for the development of regions with very different institutional thickness. The country's model of state governance divides the assignments of the government sector between the national government and local governments. However, the latter is characterised by more than a thousand time difference in the size of the administrative-territorial units when calculated based on the size of the local population, i.e. the subject of the execution of local government and the main beneficiary. In practice, the performance of functions at the national level is concentrated in Tallinn, and to a lesser extent in Tartu. The institutional thickness of the counties depends to the greatest degree on the territorial logic of the performance of national administrative functions, which is agency-centred and therefore fragmented.

In summary, these factors are realised as a hierarchy of regional inequality, with the regions that have relatively high institutional thickness and complexity, centred in Tallinn and Tartu, at the top; meanwhile, the peripheral rural areas, which are significantly simpler in the institutional sense, are at the bottom of the hierarchy. Correspondingly, there are also differences in the preconditions for the socio-economic development of the regions, the ability to create growth by implementing inherent resources, and the opportunities and challenges provided by the human environment to the population.

The following analysis shows that Estonia currently lacks the institutional conditions for domestically implementing a place-based regional policy (see Barca 2009) and for tying it to the EU Cohesion Policy. This would require more or less autonomous and sufficiently capable administrative structures, the development of which would guarantee the sustainability of the investments that are made.

The administrative-territorial prerequisites of institutional thickness

The first factor that shapes institutional thickness is the size of the population that is assigned by regional borders into one or another region. The practical and emblematic activities and relations of the population serve to reproduce the regions. It could be asserted that the size and quality of the populations in the regions determine to a great extent the limits of the regions' institutional complexity. Similar limitations caused by population are also evident in Estonia as a whole, compared, for instance, to France or Finland.

The populations of Estonia's counties vary from approximately 10,000 in Hiiu County to 540,000 in Harju County. The difference between Harju County and the next largest counties (Ida-Viru County and Tartu County) is almost threefold. The populations of most typical Estonian counties range between 35,000 and 45,000 people – about ten times less than in Harju County. The administrative areas created by the government's regional structures may include several counties, which equalises the regional differences in population to some extent.

The sizes of the local government units in Estonia vary from 60 people to 403,000 people, i.e. almost 7000 times. Over half the local government units have populations of less than 2000 people, and there are more than 5000 inhabitants in only 20% or 45 of the units (see Figure 3.3.1). Therefore, the size of the majority of Estonia's local government units is tens of times smaller than that of the economic growth centres of Tallinn and Tartu. It can be assumed that very large differences in population sizes result in different opportunities for the exercising of local governance in various regions of Estonia.

The presence of the state in the regions

The role of the government sector in society and its relative power to shape the institutional environment and its thickness is determined at the most general level by the amount of government spending as a percentage of the country's GDP. According to Eurostat data, the percentage of Estonia's government sector in the GDP was 40.3% in 2008, which placed Estonia in 22nd place among 30 countries (see Figure 3.3.2). The countries that were trailing Estonia included several Eastern European countries (e.g. Latvia and Lithuania), as well as Switzerland and Norway. As a percentage of the GDP, government spending in Estonia was six percentage points below the EU average.

Until 2007, the long-term trend in Estonia was the reduction of government sector spending as a percentage of GDP – from 40% at the end of the 1990s to 34% in 2005. There was a large six-percentage-point leap in government sector spending in 2008 and, considering the increase in the tax burden and planned budgetary deficit, one can assume that it will increase further in the next few years.

The government sector has a diverse presence in the regions. Along with the agencies of local governments, administered agencies and associations created by city and rural municipality governments, there is also a regional dimension to government and state agencies, state companies and public agencies.

Based on the statistical profile of the economic units provided by Statistics Estonia, as of 2008, the state and public units are concentrated primarily in Harju County (174 units or 48% of the total number of units), and to a lesser extent in Tartu County (47 units or 13%). The number of state units in other counties stands between five and twenty-two.

The National Register of State and Local Government Agencies reveals the inequality of the institutional thickness created by the state sector from the aspect of jobs.[13] Three-

[13] When interpreting data, one must take into acount that the county designation of agencies is based on the legal address of the agency and all the jobs at the agency may not be located in the corresponding county.

quarters of the 35,000 employees of state agencies and constitutional institutions work in agencies located in Harju County and Tartu County – 60% in Harju County and 15% in Tartu. The percentage of employees of state agencies in Harju County and Tartu County comprise 7% of all those employed. If we add public agencies, such as universities or the personnel of the National Broadcasting Service, the relative importance of state employees in Harju County and Tartu County increases further. However, the percentage of public sector employees on the whole in Harju County is one of the lowest in Estonia (19% in 2008) and five counties have higher percentages of public sector employees than Tartu County (29%).

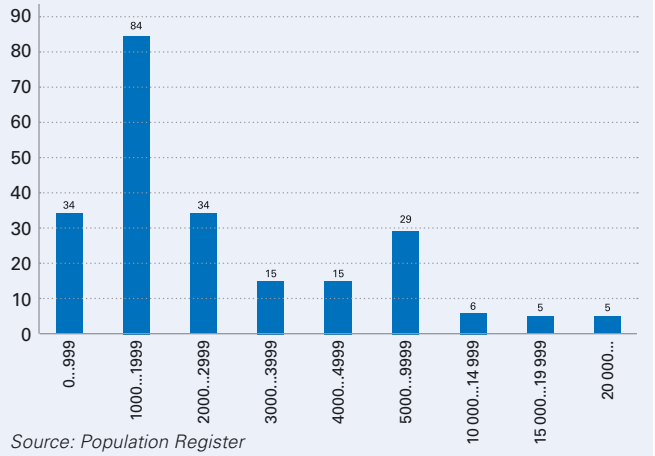
The functions of the county governments which form the institutional core of the state sector in the counties have been gradually restricted and their organisational structure has been simplified. In connection with the need to cut costs, their staff has also been reduced. One of the assignments of a county governor pursuant to the law is to ensure the balanced development of the county, but the actual legal and financial opportunities provided for this purpose are very limited. Despite this, the existence of county governments continues to have a regionally balancing effect.

In addition to county governments, a large number of regional structural units of state agencies are located in the counties and perform the tasks assigned to them by the agencies located in Tallinn. Increasingly, the coordination of these regional structural units, or their agencies themselves, is being converged at a level above the counties – the so-called administrative district level. Administrative districts are part of the state's regional system, which develop by relying on the internal institutional potential of their fields of activity, the strength of which forms the basis for the country's success. Unfortunately, the more exact scope, organisational structure and size, as well as the specific assignments of the agencies at the administrative district level are determined primarily based on departmental logic, rather than logic arising from regional policy. However, the partial convergence of the state's regional administration at the administrative district level shapes the hierarchy of the institutional thickness of the counties. Institutional thickness is largest in the counties where the cross-county structural units of state agencies are located (e.g. Harju County, Pärnu County, Tartu County, and Ida-Viru County, as well as Viljandi County and Saare County); it is smaller in counties that have fewer of these structural units or none at all (Hiiu County, Rapla County, Jõgeva County, Põlva County).

From the standpoint of regional development, in addition to government agencies, very significant differences in institutional thickness are created by the location of public universities and their colleges. The concentration of universities in Tartu and Tallinn has a great impact on the development of the entire region as measured by public financial resources, employment, age-related and educational composition, as well as the development potential of high-tech enterprise and the creative economy. A certain balancing effect is provided by university colleges in other counties, as well as the network of state schools and national vocational education centres. The reorganisation of the latter, which will result in at least one vocational school being located in each county, has almost been completed.

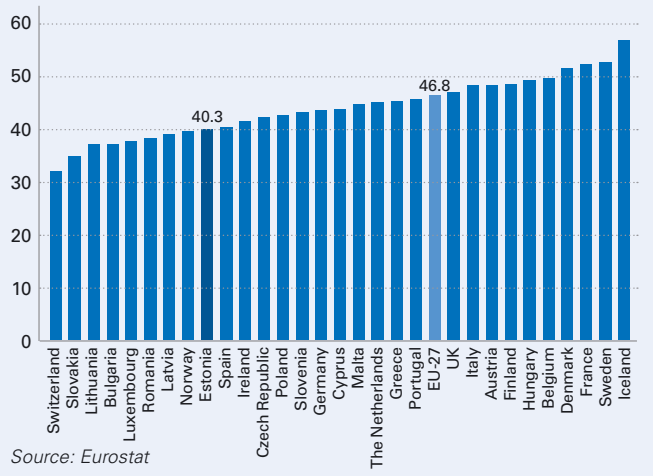
More equitable opportunities related to the availability of measures for supporting enterprise are created by the county development centres which exist in all the counties and operate in the common interest of the state and local governments. Cooperative organisations for local governments have also been established in all of the counties, although they are significantly weaker institutionally than the county-level cooperation of the local government units would require.

Figure 3.3.1. Distribution of Estonian local government units based on population in 2009 (before the election of local government councils)



Source: Population Register

Figure 3.3.2. Government sector spending as a percentage of the GDP in 2008



Source: Eurostat

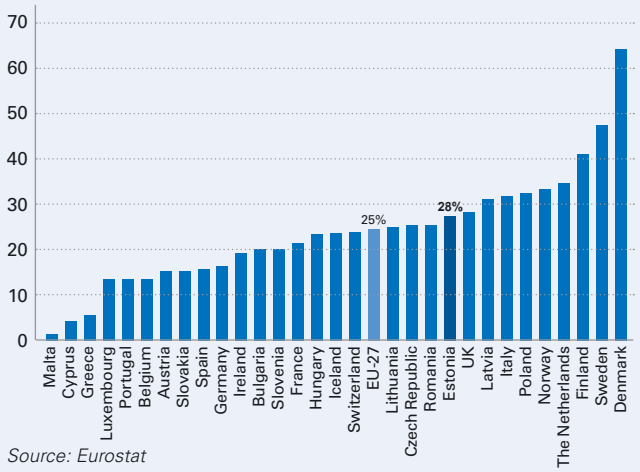
It can therefore be said that although the state sector contributes quite substantially to the institutional development of Estonia's counties, the institutional thickness in most of the counties is weaker than necessary to guarantee development based on internal resources due to the secondary position of the regional administrative structures in the hierarchy of the government sector, agency-related splintering, and the concentration of government agencies and public agencies in Tallinn and Tartu.

Since the county governments, regional units of state agencies, and offices of cooperative county organisations are usually located in county centres, the centres (and the surrounding vicinity) inevitably have greater institutional thickness compared to the peripheral local government units.

Differences in the execution of local government

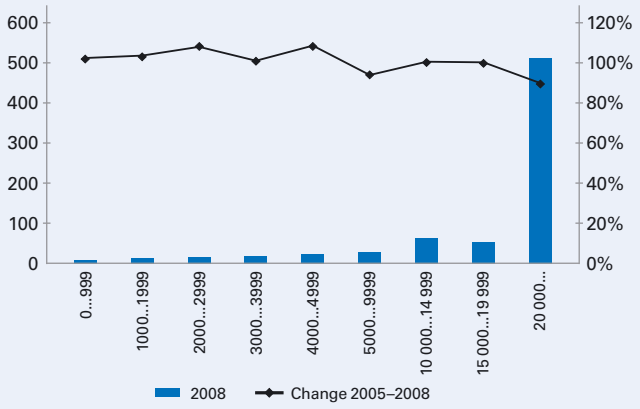
The general importance of the local government sector in shaping the institutional environment is described by

Figure 3.3.3. Relative importance of local governments in government sector spending in 2008



Source: Eurostat

Figure 3.3.4. The number of staffed positions in local government agencies (31 January 2008)



Source: National Register of State and Local Government Agencies

its percentage of GDP and government sector spending. The percentage of the costs of Estonia's local government sector in the government sector was 28% in 2008, which puts Estonia at 10th place in a comparison with the other European countries based on Eurostat data (see Figure 3.3.3). As of 2001, the relative importance of the local government sector has remained stable at 27–29% of the total volume. In the European Union as a whole, slight growth has occurred in the percentage of local government sector spending as compared to government sector spending – there has been a one-percentage-point increase over the past five years. In 2009, the local government revenues in Estonia decreased by about 15% compared to 2008, and will decrease an additional 5% based on the forecasts of the national budgetary strategy for 2010 and 2011. Since the budgetary volume is decreasing at a slower pace, a reduction of the ratio of the local government sector in government sector spending, and upon the recovery of private sector growth, also in the national GDP can be forecast.

The relative importance of local governments in government sector spending varies much more in Europe than the percentage of government sector spending as a percentage of GDP – from 1% in Malta to 64% in Denmark. This reflects the very different distribution of public sector functions between the local and state levels in Europe.

In Estonia, the most important obligations of local governments include the maintenance of general and preschool education, social welfare services, public transportation, maintenance of local roads, creation of leisure time opportunities, organisation of construction and planning activities, water and waste management, and maintenance. The mandatory assignments of the local governments have remained relatively unchanged during the last decade, with only a few assignments having been added and some removed (in the field of youth work and sports).

The mandatory assignments of local governments do not include issues related to enterprise and employment. The fulfilment of voluntary assignments based on local needs occurs in Estonia's cities and rural municipalities based on their opportunities, local competency and political choices. With respect to services for the promotion of enterprise, employment and broader regional socio-economic development, the smaller units depend primarily on the regional structures of state agencies (offices of the Unemployment Insurance Fund, county governments), as well as the national implementation agencies (Enterprise Estonia, Environmental Investment Centre, Estonian Agricultural Registers and Information Board, Innove) and cooperation and development structures (county-level local government associations, development centres).

Based on Statistics Estonia data, the distribution of the economic units of local government by county is significantly more balanced than the units of the state sector. In absolute numbers, the differences between counties are not greater than tenfold. In the counties with smaller populations, the relative thickness per capita of the local government sector is 2–3 times greater. As of 2008, the number of municipal agencies and associations in Estonia's local government units varies from three to three hundred and five, and is clearly related to the size of the unit.

The institutions that are jointly created by local government units have a certain ability to balance differences in scale. There are county-level local government associations in all the counties, as well as county-level development centres established by the local government associations. As of the end of 2008, there were 77 different cooperative undertakings of local governments, foundations and non-profit organisations that provided public services.

The regional differences in the institutional thickness of the local government sector are vividly demonstrated by the several-hundredfold difference in the number of employees in local government units. According to the National Register of State and Local Government Agencies, as of 2008, 1691 positions were staffed in Tallinn, while 4.5 positions were staffed in the rural municipalities of Piirisaare, Torgu and Vormsi. In small local government units, the trend in the middle term is for growth in the number of jobs, while in the larger units the number of jobs tends to remain stable or even to decrease (see Figure 3.3.4).

Basic local government services in cities and rural municipalities

For the population, the differences in the institutional thickness of local government units are most clearly expressed by the quality and availability of the services provided by the units (see Sepp 2008; Sepp, Noorkõiv 2009; Sepp et al. 2009).

Education

As of 2008, there are 101 local government units where it is possible to acquire an upper secondary education (see Figure 3.3.5). These include all of the county centres. Basic schools operate in another 94 local government units. There are 28 rural municipalities without basic schools and four without any schools. Most of the local government units with more than 5,000 residents have upper secondary schools, while generally, government units with fewer than 2,000 residents have no upper secondary schools. Several of the latter also lack basic schools. Upper secondary schools exist in almost two thirds of the mid-sized local government units with between two and five thousand residents. The exact size of the population does have an impact on whether or not there is an upper secondary school in a mid-sized local government unit. The majority of local governments units with no basic schools have less than two thousand residents. Access to primary education is poor only in Piirisaare Rural Municipality since the other local government units with no basic schools are located in the immediate vicinity of larger settlements.

Quite naturally, all the centres of urban regions have local general education available at the upper secondary level. Young people have the opportunity to acquire upper secondary education in the local government units in the sphere of influence of the centres of urban regions and half of the periphery local government units; in the other half only basic education is available. However, there are no basic schools in five local government units in the sphere of influence of the centres of urban regions, and in twenty-three rural municipalities that are outside of urban areas.

Therefore, the availability of general education schools in Estonian counties and local government units is good or even very good in a territorial sense. A totally different question is the extent and quality of the choices provided by upper secondary schools in smaller centres, as well as the correspondence of the school network and the specific educational services provided therein to the wishes of the students and families, and the conditions created for students to be able to study at the chosen school (public transportation), without their family's quality of life having to suffer. The minimum goal should be the existence of at least one nationally competitive upper secondary school in the county along with the opportunity for all students living in the local government units of the county to attend this school.

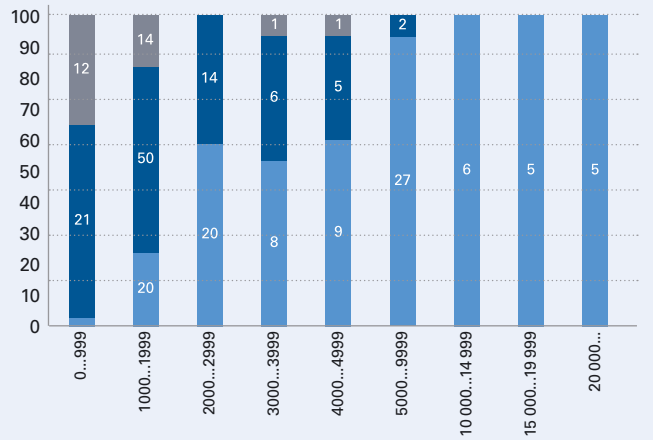
The institutional separation of upper secondary education and vocational education between the local governments and the state also has an unfavourable impact on the socio-economic development of regions. Therefore, the establishment and development of a uniform regional educational network is hindered. All the more, the local government bodies are inevitably left in the background with regard to the organisation of professional higher education, which, as the creator of student migration, jobs and intellectual concentration, is one of the most important agents of regional success.

Leisure time

The quality of people's human environment is also significantly determined by opportunities for spending leisure time. Local government agencies and associations are definitely not the only providers of leisure-time services, but especially in smaller local government units, they are of great importance. An assessment of the diversity of leisure time services based on the fields of activity of local municipal agencies and associations[14] reveals that the leisure-time services provided in the local government units with larger populations are 2–3 times more diverse. A comparison of local budgets indicates that local governments often seem to regard leisure time as the field of activity where costs can be cut.

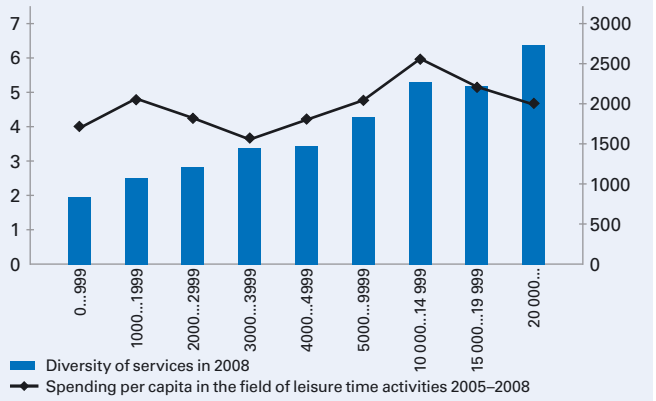
Register data also shows that the leisure time services provided in the urban region centres are twice as diverse as those provided in the local government units in the surroundings areas or in the periphery. The expenditures per capita made in these units to diversify leisure time opportunities are 20%–30% higher than in the other units (see Figure 3.3.6). While people living close to urban region centres can reduce the limitations of the leisure time opportunities in their own rural municipalities by using the services in the centres, most people living in peripheral areas do not have this opportunity.

Figure 3.3.5. Upper secondary and basic schools in local government units, 2008



Source: EEIS

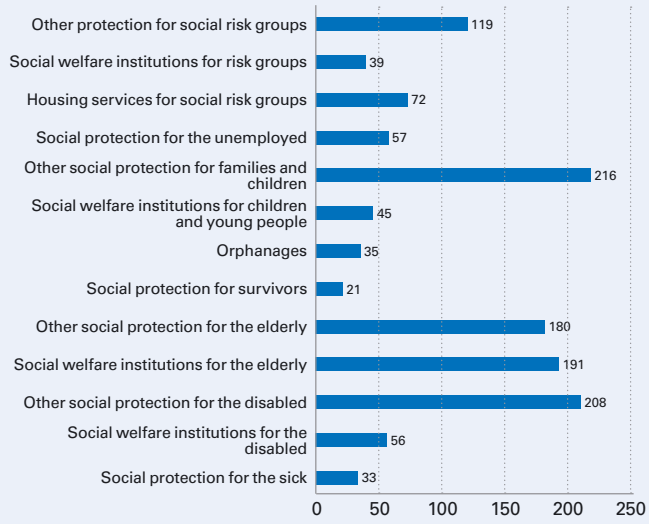
Figure 3.3.6. The diversity of leisure time services and expenditures from local budgets



Source: State Register of State and Local Government Agencies, Balance Records Information System, Ministry of Finance

[14] The existence of music and art schools, sports schools, cultural institutions, museums, youth institutions, libaries and sports centres as institutions or associations was assessed.

Figure 3.3.7. Social protection spending in local budgets in 2007



Source: Ministry of Finance

When examining the possibilities for spending leisure time as an agent that shapes the regional differences in the quality of the human environment, one must keep in mind that the leisure time services financed by the state (e.g. theatres, concert halls) and provided by the private sector are concentrated even more in individual centres. At the same time, one cannot ignore the quality of culture, sports and entertainment, which also creates advantages for the human environment in centres, primarily in Tallinn and Tartu.

Social protection

At the beginning of 2008, more than half of Estonia's local government units – 114 of 227 – lacked social protection agencies or associations that were owned by the municipality. In 94 local governments, there was one agency or association, in 12 there were two, and in seven there were three or more. At the same time, a social centre as a municipal agency existed in 73 local government units, or in one third of the units. In 50 local government units, there were less than 10 jobs in these agencies and associations and only in five units did the number of workers exceed 100. By 2008, only four cooperative social protection associations had been founded by local government units, with a total of 75 workers.

Great differences also exist between Estonia's local government units with regard to the volume of social protection spending. In 2007, 10% of the local government expenditures for social protection amounted to less than one million EEK. At the same time, the social protection costs in the larger units reach 100 million or more EEK (Tallinn). Most of the social protection expenditures in Estonia lie between one and 10 million EEK. Spending per capita does not exceed 1000 EEK in three-quarters of the units, although in individual local governments, it reaches 3000 EEK or more. All local governments with relatively high social expenditures also have small populations, whereas, the budgetary social expenditures per capita do not exceed 1500 EEK in any units with over 8000 residents.

An examination of the diversity of the fulfilment of social protection assignments based on the budgetary expenditure items for various measures reveals that in 2007 more than half of Estonia's local governments made budgetary expenditures for only four sub-groups out of a possible 13. The four sub-groups included expenditures for the social protection of families and children, the social protection of the elderly, social welfare institutions for the elderly, and the social protection of disabled people. The largest number of units (49) made expenditures in five sub-groups, while only 20 local governments made expenditures for nine or more social protection sub-groups (see Figure 3.3.7). This demonstrates the great inequity that exists among local governments as a service provider.

It is clear that the number of people that require social services and support depends to a great degree on the population of the city or rural municipality. Therefore, one might think that the smaller local governments and their local social protection organisations would be able to fulfil their duties by spending fewer financial resources. In actuality, however, every individual person's needs for social services do not depend on the number of people that live or require social services in that unit. In other words, the need for diversity in social services, and the resulting demand on the local organisation of social protection, is relatively similar in local government units of different sizes, while the actual ability to provide diverse services is not.

The institutional thickness shaped by the private sector

The institutional thickness of regions is not only created by the public sector, but also by the private and non-profit sector. Statistics Estonia data shows that the relative number of business entities in the counties does not vary to a great degree – the highest ratio is in Hiiu County, reaching 12.8 business entities per 15–64-year-old resident, while the lowest ratio of 8.8 is in Ida-Viru County. In Estonia, 191 local government units do not have any companies with 250 or more workers; 90 units do not have companies with at least 50 workers; and 17 units do not have companies with 10 or more workers. There are no large companies in two counties and there are more than ten in only four counties. The diversity of the enterprise sector is closely related to the size of the local government unit.

Based on the large differences in population by county and local government unit, the nominal number of companies, and the diversity of the enterprise environment based thereon, varies to a great degree. In a large number of Estonian local government units, the enterprise sector is limited to similar small enterprises with simple structures. On the one hand, this reflects the limitation of the development and export potential of local enterprise; on the other hand, the lack of demand prevents the development of the preconditions necessary for improving the quality of the local enterprise funding structures.

The networking of enterprise is one of the possibilities for solving the problems resulting from smallness. Few positive examples of this are to be seen. The representative and cooperative enterprise structures are generally centred in Tallinn (Estonian Employers Confederation), and in the best cases, the central organisations have representative offices in the large cities (e.g. Chambers of Commerce and Industry in Tartu, Pärnu, Jõhvi, and Kuressaare) or in all county centres (Central Union of Estonian Farmers, Farmers' Central Union).

3.4. Main features of the state's regional policy

When assessing the state's regional policy it is useful to differentiate between the conceptual and practical dimensions. The conceptual bases for regional policy are contained in the state's development documents that describe the situation and present objectives and solutions. The practical content of regional policy is most apparent in the examination of the decisions made by the state regarding financial and administrative organisation. Of the policies being executed, the most important for Estonian regional development include the government sector's budgetary policy and the policy for implementing the resources from EU Structural Funds and the state's funds.

All the strategies that express the state's positions with regard to regional policy set Estonia's balanced regional development as an objective. Different development documents focus on different regional units, usually on the counties. In the best cases, the local level is of third-rate importance as a measure of the success of the national regional policy. However, in practical regional policy, the local government units are the most important executors of regional development alongside the state level. At the county level, there are no strong developmental organisations that have the use of considerable amounts of financial and human resources. A principle of the national financial policy generally directed at the local government units is the equalisation of revenue levels. In the implementation of regional development programmes directed at city and rural municipality governments, the local government units with smaller populations gain the most, which as a rule are allocated significantly more funding per capita. As can be seen from the following, the practical regional policy at the county level supports the development of an Estonia with two growth centres.

Conceptual bases of the state's regional policy

The conceptual content of the government's regional policy is comprehensively described in the Regional Development Strategy of Estonia 2005–2015. The understanding comprised in the strategy has many features in common with the regional policy positions based on "new regionalism". Emphasis is placed on the following: the use of inherent development advantages; the importance of local initiatives; the need to guarantee the country's general strategic vision; financial support for local initiatives; opportunities for the private sector to be involved through partnerships; the better utilisation of the developmental advantages of successful growth regions (Tallinn, Tartu), in the context of the state. The essential foci that are brought forth include the wellbeing of the population, employment and educational opportunities, regional competitiveness, and cohesion with other regions.

A pluralistic understanding is expressed in the determination of the target regions of regional policy. In connection with the goal of balancing the quality of the human environment, these include "every place in Estonia" which means the level of settlement system units or settlements (e.g. villages). When measuring the success of regional policy, emphasis is placed on the counties and the development differences between them. At the more visionary level, importance is placed on regions constructed based on typical characteristics – urban centres and their areas of influence vs. rural areas; national growth regions (Tallinn, Tartu); growth areas related to county centres; and areas outside the growth areas.

In connection with the institutional thickness of regions, the regional development strategy considers it necessary to "increase institutional capacities and intensify local development activities". In the plan of action drawn up for 2005–2007, in addition to changes at the national level (e.g. Regional Development Act, reorganisation of the Regional Policy Council, national urban policy), plans were made for strengthening the institutional development of the regions by working out and implementing the concept for regional skill centres, optimising the network of vocational education institutions and the concentration of state-commissioned education in regional educational institutions. More general or integrated changes in the government sector, in the state's regional administration and organisation of local government were not considered necessary for increasing regional institutional thickness. The main emphasis lies on the development of public services and the human environment by supporting existing institutional structures.

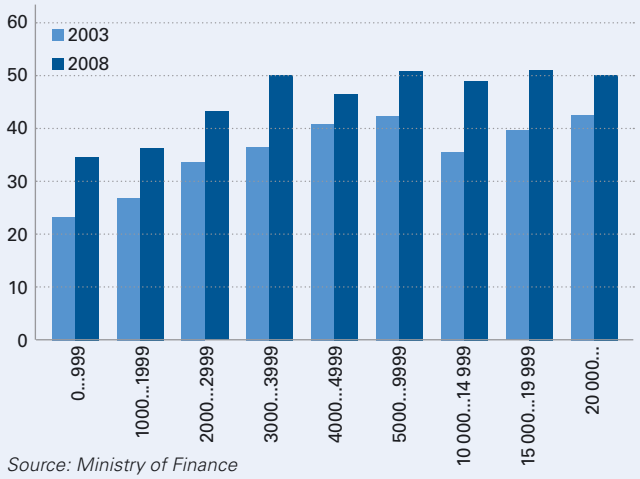
Achieving regional balance is also one of the goals of the Sustainable Estonia 21 strategy that provides a general vision of the country's development, without specifying the level at which this is being aspired to. The strategy, in coordination with the regional development strategy, also emphasises the importance of the preconditions, choices and regional positioning necessary for internal development. In the measurement of regional balance, it is considered important to focus on the distribution of incomes and the poverty risk rate, the ratio of school dropouts and students accepted at university, and the preferences of residents in the selection of places for living and working.

Unlike the regional development strategy, Sustainable Estonia 21 considers successful administrative reform to be an important precondition for achieving regional balance, as a result of which larger local government with greater administrative capacities will be created, which have a strong budgetary base and function in cooperation with third-sector organisations.

The strategy sees purposeful budgetary policy, including the use of structural funds as another principal mechanism for achieving this goal.

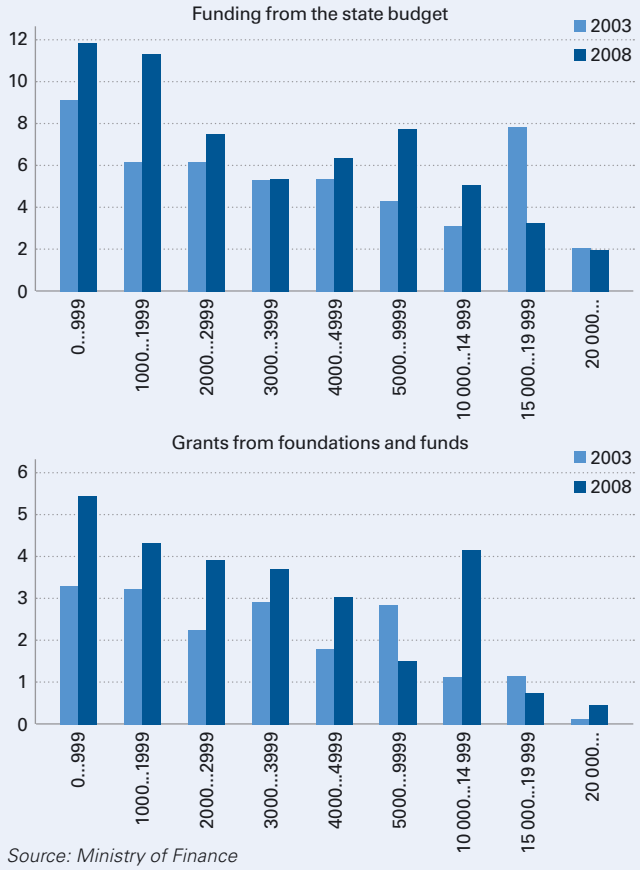
The National Strategy of the Implementation of Structural Funds 2007–2013 endeavours to achieve "regionally balanced economic growth" at all regional levels, which in the context of the strategy include the following units: "locality, rural municipality, inter-rural-municipality region, county, NUTS 3, rural area, urban area, nature-specific region, culture-specific region, labour area, etc." This essentially conforms to the understanding included in the regional development strategy. However, priority

Figure 3.4.1. Ratio of income tax in local budget revenues, by size of the local government units



Source: Ministry of Finance

Figure 3.4.2. Ratio of state budget investment funding and appropriations from foundations and funds in local budgets, 2003-2008



Source: Ministry of Finance

5 of the strategy, "The Integrated and Balanced Development of Regions", is directed at a supporting a significantly narrower policy. The "subjects of these activities are primarily local government units and non-profit organisations and other organisation that contribute to the local human environment, as well as the state agencies that have control over objects that are significant from the standpoint of regional development, and funding is directed to a great degree at the development of the "objects" of a built-up environment.

It is hoped that greater administrative capability, which is priority 6 of the strategy, will be achieved in the counties, cities and rural municipalities without making significant changes in administrative organisation, the distribution of government sector assignments or financial relations. In any case, administrative reform is not considered to be a precondition for the achievement of regional balance in economic development.

Strategic decisions related to regional policy are also included in many other national development plans. For instance, there is a strong regional dimension to the development plans for the vocational education system, as well as the transport and hospital networks. At the same time, it is essentially missing from Estonia's plan of action for the implementation of the Lisbon Strategy, and is limited to setting regional limits on the beginners' allowances for teachers. In the Strategy for Competitiveness, the regional policy dimension is reflected in two aspects – in the plan "to develop specialised regional competence centres outside of Tallinn and Tartu" and "to develop a high-speed Internet network that covers all of Estonia, in order to create and provide the necessary services to the populations and businesses in rural areas". The implementation of a regional pilot project for export incubators is described as an important initiative in the Foreign Investments and Export Action Plan for 2009–2011, although regions are defined as other countries and their groups. The strategy also takes the position that two large industrial areas are sufficient for Estonia.

A specific normative perspective for regional development is provided by the county's thematic social infrastructure plans focused on the "neighbourhood" level, which is lower than the local government unit level. The plans describe the existence and recommended locations for important basic services from the standpoint of the human environment without connecting the fulfilment of the developmental needs to any specific institutional structure or financial resources.

Regional policy in the state's budget policy

The regional dimension is not very important in the structure of the state budget, and the questions related to the distribution of government sector finances are resolved according the development plans of the area of government and the plans of action based thereon.

In Estonia's regional system, the revenues of the local government units, which are the only regions that possess a certain financial autonomy besides the national government, increased twofold in the period from 2003 to 2008 – from 11.7 billion to 22.7 billion. The difference in absolute revenue volumes between local government units is five thousand times – from 7.1 billion in Tallinn to 1.4 million EEK in Piirissaare Rural Municipality. The budget revenues per capita in cities and rural municipalities differ "only" five times. In 2008, the minimum level of budget revenues was in Kasepää Rural Municipality (10,000 EEK per resident) and the maximum in Mäetaguse Rural Municipality (47,000 EEK). The revenue level in most

rural municipalities (85% in 2008) per resident does not differ more than two times, being between 10,000–20,000 EEK per capita. Whereas the higher level of relative revenue is not in the local governments with the highest-earning populations, but those units that have gotten funding (investments) from the state in the corresponding year. As a generalisation, one could say that by nature Estonia's local budgetary policy equalises revenues (see Haljaste et al. 2006).

In the period 2003–2008, one can notice a positive trend in the structure of local budget revenues towards the increased ratio of own revenues. The ratio of income tax in local budget revenues has increased from 42% in 2003 to 50% in 2008. The greatest ratio of income tax is in the 2008 budget of Saue Rural Municipality (77%), and the smallest in the rural municipalities of Illuka and Mäetaguse (13%). The dependency of the income tax ratio on the population of the local government unit is modest – the difference between various size groups of local government is 16 percentage points. An increase of 10–20 percentage points has occurred in all groups and one can notice an intra-system levelling of the revenue base with regard to the most important source of own revenues. In a comparison between 2003 and 2008, the differences between the groups have decreased by four percentage points.

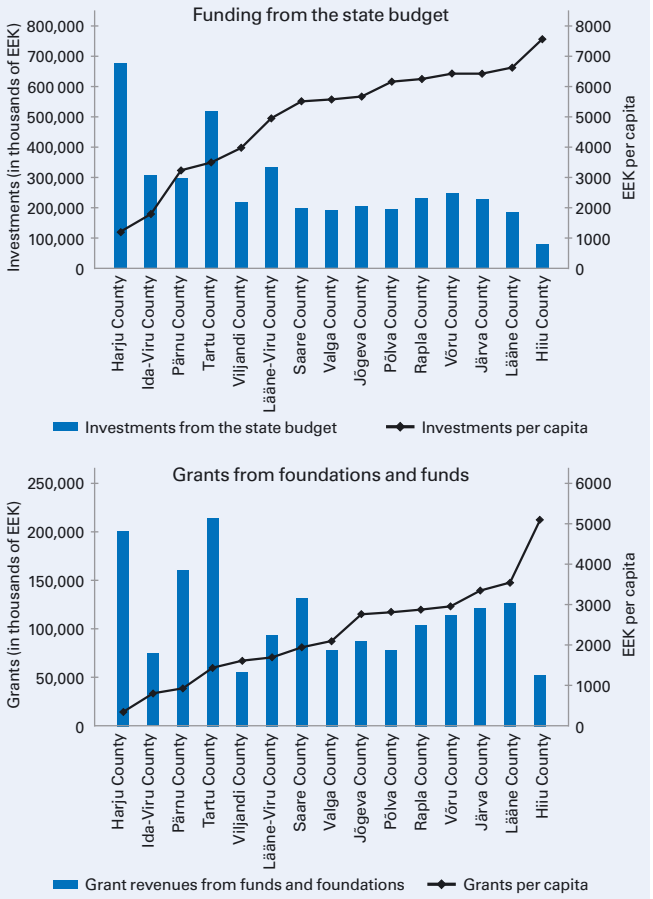
The average income tax ratio in the local government units varies by county from 60% in Harju County to 20% in Võru County. A clear regional difference appears between Harju County on one end and the remaining counties on the other, where the average income tax ratio in the local governments does not exceed 46%. County-related differences have remained unchanged in the period 2003–2008.

Despite the growth of the income tax ratio, the role of government funding in most of the local budgets is still large. The maximum ratio of state funding in local budgets reaches 81% (Piirissaare Rural Municipality). If we leave out the local government units where basic revenues come from environmental fees, then the smallest ratio of state funding is in rural municipalities near Tallinn – the lowest in the rural municipalities of Harku and Saue (13%). In the budgets of 71 local government units, state funding comprised at least half of the revenues, and in only 24 units was this less than one-quarter. A general tendency can be observed that the ratio of funding is greater in small local governments and those outside urban areas. However, the differences between the groups remain within 10–15%, and there is less local financial autonomy.

In 2008, the ratio of funding from the budget equalisation fund (Section 1) created for the systematic levelling of the budget revenues of local government units was only 6%. This has decreased in comparison to 2003 by four percentage points. In 2008, the maximum ratio of budget equalisation funding in the budgets of local government units was 39%, and 55% in 2003. In 2008, 20 units lacked the need or opportunity to use equalisation funding in the local budget. Here too, some progress has occurred – in 2003 there were 17 such units.

State budget grants for investments and earmarked revenues received from state funds and foundations constitute another important source of state funding for local government units. In 2003, investments from the state budget comprised 4% of local budget revenues and in 2008 this was 5%. The ratio of funding from foundations

Figure 3.4.3. Ratio of state budget investment funding and appropriations from foundations and funds in local budgets, 2003-2008



Source: Ministry of Finance

Table 3.4.1. Distribution of structural funds by county in 2004–2006 (without national and inter-county projects)

County	Accepted obligations				Percentage of the population
	EU participation	Participation of the Estonian public sector	Participation of the Estonian private sector	Total	
Harju County	23%	20%	21%	21%	40%
Hiiu County	1%	2%	1%	1%	1%
Ida-Viru County	10%	8%	4%	8%	13%
Jõgeva County	6%	4%	6%	5%	3%
Järva County	4%	3%	5%	4%	3%
Lääne County	3%	3%	4%	4%	2%
Lääne-Viru County	4%	5%	9%	6%	5%
Põlva County	3%	3%	6%	4%	2%
Pärnu County	6%	5%	6%	6%	7%
Rapla County	2%	2%	3%	2%	3%
Saare County	7%	7%	6%	7%	3%
Tartu County	19%	23%	16%	19%	11%
Valga County	3%	3%	4%	3%	3%
Viljandi County	5%	9%	5%	6%	4%
Võru County	4%	4%	3%	4%	3%
Total	100%	100%	100%	100%	100%

Source: Enterprise Estonia as of 16 November 2009

Table 3.4.2. Distribution of structural funds by county in 2004-2006 (without national and inter-county projects)

County	Accepted obligations				Payments			
	EU participation	Participation of the Estonian public sector	Participation of the Estonian private sector	Total	EU participation	Participation of the Estonian public sector	Participation of the Estonian private sector	Total
Harju County	44%	50%	51%	46%	43%	50%	59%	46%
Hiiu County	0%	0%	1%	0%	1%	1%	1%	1%
Ida-Viru County	14%	16%	11%	14%	2%	0%	2%	2%
Jõgeva County	2%	1%	2%	2%	2%	0%	0%	1%
Järva County	3%	2%	1%	2%	3%	2%	2%	3%
Lääne County	1%	1%	0%	1%	2%	2%	0%	2%
Lääne-Viru County	4%	4%	4%	4%	2%	1%	2%	2%
Põlva County	1%	1%	2%	1%	3%	2%	3%	3%
Pärnu County	9%	10%	2%	8%	4%	2%	2%	3%
Rapla County	2%	1%	1%	2%	2%	1%	4%	2%
Saare County	1%	1%	2%	1%	2%	1%	1%	2%
Tartu County	13%	8%	20%	13%	23%	28%	17%	23%
Valga County	3%	3%	1%	3%	3%	2%	4%	2%
Viljandi County	2%	2%	1%	2%	6%	7%	1%	5%
Võru County	1%	1%	0%	1%	3%	1%	1%	2%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Source: Enterprise Estonia as of 16 November 2009

Table 3.4.3. Funding for projects allocated by Enterprise Estonia from 2004 to November 2009

County	Number of funded projects	Amount of funding	Amount of funding per capita	Cost of the projects	Funding percentage
Harju County	3570	4,157,512,317	7695	6,451,837,008	64%
Hiiu County	104	69,836,124	6605	134,498,054	52%
Ida-Viru County	809	397,639,599	2323	735,741,485	54%
Jõgeva County	277	146,797,631	4016	258,770,276	57%
Järva County	208	197,778,755	5473	301,100,915	66%
Lääne County	230	221,385,450	7863	342,008,694	65%
Lääne-Viru County	351	206,582,269	3042	388,487,009	53%
Põlva County	311	240,615,389	7544	403,512,986	60%
Pärnu County	461	407,732,749	4475	617,415,619	66%
Rapla County	170	131,806,379	3523	212,766,767	62%
Saare County	340	313,506,040	8588	507,246,723	62%
Tartu County	1560	1,923,743,583	13,019	2,810,967,134	68%
Valga County	267	270,717,485	7769	374,178,011	72%
Viljandi County	331	261,873,042	4726	509,218,571	51%
Võru County	335	315,336,097	8112	447,396,661	70%
Unspecified county	606	32,171,416		49,819,188	65%
Total	9930	9,295,034,324	6811	14,544,965,100,,	64%

Source: Enterprise Estonia database of funded projects as of 30 November 2009

and funds in local budgets was 1% and 2% respectively. A similar regional logic is evident in the allocations of both types of funding. The ratio of these earmarked revenues is significantly higher in the budgets of local government units with smaller populations. With respect to investments from the state budget, the units with fewer than two thousand residents are clearly differentiated from the others in 2008, and units with fewer than one thousand are clearly differentiated with respect to foundations and funds.

When analysing local budgets, it also appears that, at least until 2008, resources from funds and foundations were available to all local governments. Only two local government units did not receive revenues from funds and foundations in 2008, both of which have populations of less than 1000.

By county, significant regional differences are caused by the state's policy for earmarked funding for local budgets (see Figure 3.4.3). The general trend is that significantly less funding per capita is allocated for the local governments in counties with larger populations. In 2003–2008, the local government units in Harju County received 1200 EEK per capita in investment funding from the state budget, while Hiiu County received 7500 EEK per capita – thereby making a sixfold difference between the counties. In the case of foundations and funds, the difference between Harju County and Hiiu County is even greater – more than 13 times.

Thus, the state's budgetary policy has a strong impact on the revenues of local government budgets. The investment funding policy favours the smaller and more peripheral local government units. However the impact of the scale effect resulting from the difference in absolute volumes on the choices available to city and rural municipality governments in the development of public services and decision-making still remains.

Regional outputs in the implementation of Structural Funds

One can notice some differences in the policy for the implementation of state structural funds in the period 2004–2006 compared to the period 2007–2013.

In 2004–2006, this policy had a partial levelling effect on regional differences with respect to the obligations accepted in connection with structural funds and the payments that were made. Namely, the funding allocated for Harju County was only 21% of all the resources distributed to the counties, which is almost half the percentage of the Harju County in the country's population (see Table 3.4.1). On the other hand, significantly fewer structural fund resources were directed at Ida-Viru County, which has consistently demonstrated weak economic development. However, Tartu County, with a relatively high level of development, has been a structural policy favourite. The ratio of resources allocated to Tartu County has exceeded almost twofold the ratio of the county's population in the country. The logic of the regional policy is also hard to understand in the cases of other counties – Saare, Jõgeva, Põlva, and Viljandi – which have received considerably more structural fund resources than average considering the size of the population.

The state of the obligations accepted to date in the 2007–2013 implementation period points to certain changes in the approaches to regional policy. Namely, there is no negative discrimination of the capital city region. The distribution of resources is generally close to the proportion of the county's population and the

ratio of resources planned for Harju County (46%) even exceeds the proportion of the population. However, Tartu County has preserved its clear privileged status in the context of the payments that were made, which undoubtedly shows the strong institutional thickness of the county (see Table 3.4.2).

In the period from 2004 to November 2009, Enterprise Estonia has supported a total of almost 10,000 socio-economic development projects for a total of 9.3 billion EEK. The implementation of the resources entrusted to Enterprise Estonia by the state differs by county almost fivefold, considering the money allocated per capita (see Table 3.4.3). Similar to the analysis presented above, Tartu County has profited more significantly and received more development support from projects grants than the others, and Ida-Viru County has received the least. From the standpoint of the balance of regional development it is positive that the counties in Southeast-Estonia, which have poorer socio-economic development, have been provided higher than average funding.

A closer examination of the distribution of the funding for the development of enterprise, technologies and competence, etc, within the framework of 52 programmes reveals that it intensifies a regional policy based on a development model for Estonia with two growth centres (Tallinn and Tartu). Three billion EEK or 80% of all funding has be made to these two counties.

A comparison of the beneficiaries of the resources allocated by Enterprise Estonia clearly demonstrates the county-level institutional weakness as an executor of regional development (see Table 3.4.5) The government and EU resources that have been allocated to county-level development organisations total 167 million EEK, which is less than 2% of the resources allocated by Enterprise Estonia during six years. The largest amounts have been entrusted to the county governments, which have received 142 million EEK in funding for 128 projects in six years. The average financial contribution of the county governments themselves is about 5%, whereas it does not exceed 1% in eight county governments. County-level development centres have received funding for 208 projects totalling 15 million EEK. The county-level local government associations have successfully applied for funding for 10 projects, totalling 10 million EEK.

On the other hand, it is clear that the city and rural municipality governments have greater importance in the use of the state resources related to Enterprise Estonia. In the period 2004–2009 (as of 30 November 2009), 2.3 billion EEK in funding has been allocated by Enterprise Estonia to city and rural municipality governments for projects totalling 3.4 billion EEK. Funding has been provided to 219 local governments for 1101 projects. Of the local government units that did not receive/apply for funding, the population in four was less than a thousand, in three the population was between 1000 and 2000, and one had a population between 5000 and 10,000.

The majority of the EE resources directed at local government units is implemented in the construction of buildings and civil engineering projects, and more precisely, investments that allow the local governments to increase the quality of their mandatory duties (mostly for primary and general education services, less for leisure time and social services). The funding provided for this purpose comprise more than three-quarters of all allocated resources. The portion of resources allocated for the tourism-related environment – 16% – is also noteworthy. The ratio of projects directed at the development of enterprise environments did not exceed 3% of the resources

Table 3.4.4. Funding allocated from EE structural funds within the framework of development programmes for enterprise, tourism, technology and innovation

County	Number of funded projects	Amount of funding	Amount of funding per capita	Cost of the projects	Funding percentage
Harju County	3244	1,943,307,796	3597	3,808,578,932	51%
Hiiu County	48	20,869,116	1974	49,370,948	42%
Ida-Viru County	636	127,734,172	746	354,102,853	36%
Jõgeva County	169	34,086,862	933	109,357,059	31%
Järva County	123	31,967,213	885	74,762,621	43%
Lääne County	148	50,410,875	1790	89,567,975	56%
Lääne-Viru County	230	53,988,316	795	140,757,675	38%
Põlva County	177	92,435,770	2898	189,901,433	49%
Pärnu County	308	72,942,604	800	170,557,663	43%
Rapla County	101	16,611,220	444	36,146,647	46%
Saare County	239	74,478,968	2040	168,984,820	44%
Tartu County	1317	1,024,098,362	6931	1,665,006,075	62%
Valga County	166	72,276,174	2074	118,984,525	61%
Viljandi County	231	52,622,793	950	116,767,032	45%
Võru County	160	24,108,622	620	46,349,428	52%
Unspecified county	247	16,685,676		30,804,270	54%
Total	7544	3,708,624,541	2718	7,169,999,955	52%

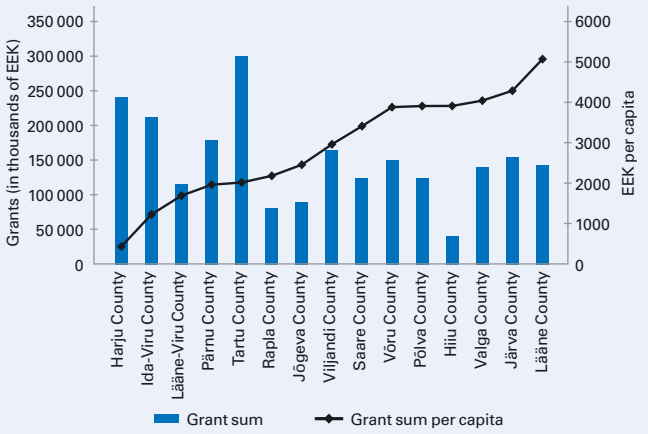
Source: Enterprise Estonia database of funded projects as of 30 November 2009

Table 3.4.5. Structural fund allocations for city and rural municipality governments from 2004 to November 2009

Population of the local government unit	Number of projects	Number of programmes	Average amount of funding	Total funding	Amount of funding per capita
0…999	3.8	2.2	4,081,245	122,437,355	4941
1000…1999	4.1	2.5	5,830,485	472,269,306	3857
2000…2999	5.0	2.9	9,454,814	321,463,673	3831
3000…3999	5.1	3.0	12,692,680	190,390,206	3582
4000…4999	5.1	3.2	10,180,487	152,707,305	2305
5000…9999	5.3	3.0	11,136,822	311,831,025	1579
10 000…14 999	11.5	6.0	44,285,961	265,715,769	3363
15 000…19 999	8.6	4.8	18,972,123	94,860,615	1119
20 000…	13.6	6.6	65,047,372	325,236,860	498

Source: EE database of grants as of 30 November 2009

Figure 3.4.4. Structural fund allocations for city and rural municipality government from 2004 to November 2009



Source: EE database of grants as of 30 November 2009

allocated by Enterprise Estonia to city and rural municipality governments. Regionally, it turns out that although peripheral units and those with smaller populations participate in fewer programmes and have received less funding for fewer projects, per capita these units have received many times more funding than units in large rural and urban regions.

By county, the proportion of the relative volumes of resources allocated to city and rural municipality governments by Enterprise Estonia coincides with the general distribution of resources. Local government units in Harju County have received significantly less funding per capita and other counties with larger populations (see Figure 3.4.4).

3.5. Summary. The socio-economic development of regions, state policy and the challenges of administrative reform

As a general tendency, Estonia's regional development is characterised by inequality, as expressed by the large regional differences at the level of local government units and counties. The unbalanced tendencies are also evident if we compare the capital city region with the rest of Estonia, the growth centres Tallinn and Tartu with the other regional centres, the urban regions and their hinterlands with the local government units outside urban areas, or urban settlements with rural settlements.

In recent years, the regional development trends have moved in different directions. The differences in the regions' inherent potential for development (education, economic structure, productivity) have generally grown and the development potential is becoming increasingly concentrated in regions centred around Tallinn and Tartu. Despite the sporadic persistence of high levels of inequality, a trend towards greater equalisation is apparent in the case of the components of socio-economic development that are related to public wellbeing (income, employment). The short-term effect of the economic crisis has also primarily served to reduce differences between the regions. This is not surprising, of course, since the capital city region was the main force behind the fast credit-based economic growth and increase in public wellbeing. As a result, the burden of debt of the inhabitants, companies and local government units in the boom areas is also heavier and considerable resources must be spent on servicing the loans.

In the longer term, however, it is the regions with the largest rural populations and the largest share of the economy based on simple labour and traditional sectors that face the greatest risks with regard to employment and wellbeing. Even now, unskilled workers make up 80% of the unemployed. According to the *Forecast of changes in economic structure of the Estonian regions* prepared in 2009, the employment opportunities of blue-collar workers will decrease further in the future. In the structural sense, this is an unavoidable part of the country's positive socio-economic development. Assuming that workers with tertiary education will be in the highest demand in the future, only the urban regions of Tallinn and Tartu currently have positive prospects.

It is possible that problems may accumulate on a regional basis. People living in regions with lower average levels of income and high unemployment rates will have fewer opportunities for buying services, which, in turn, will cause a drop in the number of jobs in the service sector. Increasing unemployment and problems with coping in regions that are more distant from growth centres will limit the ability and willingness of the people living there to contribute to local and regional development.

Due to its state of regional development and the trends described above, Estonia faces a critical question with regard to its regional policy: is the development model with one or two growth centres suitable for leading or supporting the entire country? The issue is all the more vital due to the fact that in the context of the European Union and in terms of the EU regional policy, Estonia as a whole, in its current stage of development, is a region with a low level of socio-economic development.

Estonia's regional system is characterised by the development of regions with very different levels of institutional substance and thickness. This process has been influenced, among other factors, by the preconditions arising from the country's administrative-territorial organisation. It is due to the large differences in the population sizes of cities and rural municipalities that the capacities of local government units for organising life at the local

level and providing the necessary services also vary to a great extent. As strong territorial units, cities and rural municipalities generally require a stronger administration and capacity for the provision of services. As a whole, however, Estonia's local government system is characterised by the excessive dispersion of human and financial resources and the relatively small diversity and low level of complexity of most units. Cooperation between the local government units, which could neutralise the weaknesses arising from the administrative-territorial organisation, has so far been rather modest and strongly dependent on the (changing) beliefs and opinions of the heads of local governments. The local governments' fulfilment of their role as the frontrunners on socio-economic development is hindered by the fact that their obligations do not include activities related to employment, business and tertiary education.

In Estonia, the administration of affairs at the county level is mainly handled by the public sector. The contribution of the public sector to institutional thickness has a significant impact on regional balance. The network of vocational schools, county governments, local units of agencies and inspectorates, and the activities of county development centres serve to establish a relatively similar institutional environment in all of the counties. However, save for a few exceptions, governmental and state authorities as well as public sector institutions that produce knowledge and skills at the highest level are all based in Tallinn and Tartu. Despite the significant state presence at the county level, the counties are institutionally weak, largely due to their departmental fragmentation. There is no organisation with a common set of goals that would be responsible for development and able to act in the interests of the county by handling issues related to economic development, employment and vocational education, among others.

In terms of decision making and responsibility, Estonia's regional policy is very state-centred. While in the EU, the use of 37% of the cohesion instruments between 2007 and 2013 is handled by regional administrative structures (in Denmark, Sweden and many Western European countries more than half of the cohesion instruments are handled regionally), the corresponding percentage in Estonia is 0. Estonia lacks the necessary administrative capacity at the regional level. As a result, the main partners of the state's structural funds policy are city and rural municipality governments who, instead of taking part in shaping policies, only participate in the process as beneficiaries.

There are two central tendencies in Estonia's practical regional policy. Firstly, the state engages in the equalisation of revenue in the case of local budget revenue in general as well as the awarding of specific project-based support. Generally, local government units and counties that have smaller populations and are more peripheral receive significantly more funding per capita. On the other hand, however, providing support based on the principle of compensation for projects aimed at developing the local human environment and public services reduces, all in all, the motivation of smaller local government units to merge with larger ones. Within the framework of the current support policy, the best choice tactically from the standpoint of the local government units is the type of cooperation where state support helps maximise potential revenue for each local government unit, while costs are optimised by the joint development of services.

The implementation of support programmes aimed at promoting socio-economic development is based on a bipolar model of regional development. This means that most of the state support is allocated to Tallinn and Tartu. In this case, regional policy is heavily dependent on prior developments, since the institutional thickness that already exists in Tallinn and Tartu determines their capacity for successfully applying for and using structural instruments.

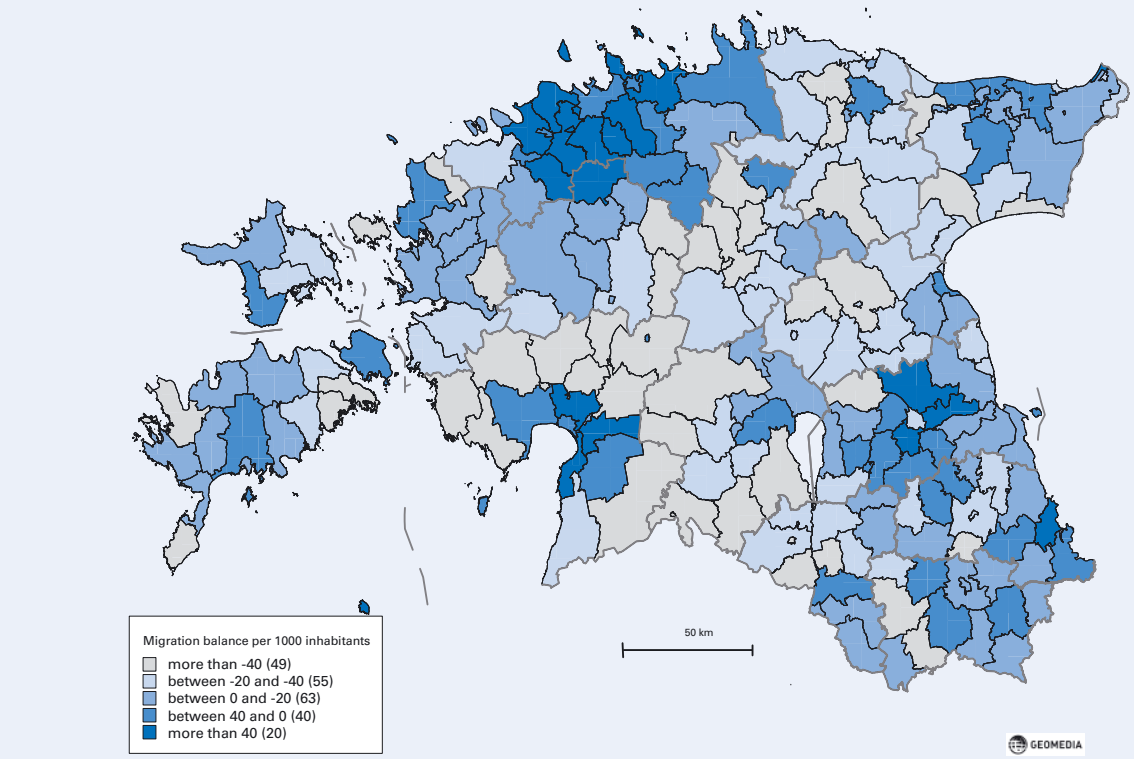
Regional policy that combines a two-centre model of growth with the equalisation of revenue and wellbeing serves to maintain the *status quo*. It is primarily directed at limiting the increase of regional differences, rather than reducing the inequality of regional development. The issues related to consolidating and mobilising the inherent development potential of Ida-Viru County are unsolved. Supporting the fulfilment of the obligations related to the provision of basic services and the development of the human environment in smaller and more peripheral local government units does not halt the emigration of young and active people to growth centres, since the emigration is caused by large regional differences in employment and educational opportunities.

The most important criterion for evaluating Estonia's regional development and the success of the country's regional policy is the quality of the human environment created for people in different parts of Estonia. The question of how to assess this quality is more complicated. Studies have shown that the public level of satisfaction with the services of local governments is not always connected to the diversity of the provided services and the more objectively measurable characteristics of quality. To a significant degree, people's level of satisfaction is influenced by their expectations regarding the services (Oliver 2007). If expectations are lower in smaller and more peripheral local government units, a satisfaction survey cannot reveal their strong demand for the improvement of services and the local capacity for development (cf. Sepp 2008).

In many cases, solutions for regional problems are found at an individual level, through beautifying one's home and neighbourhood or through participating actively in business and/or associations. According to the negative scenario, however, an individual solution means emigration from the region that does not provide the individual with a satisfactory human environment. Thus, a region's migration balance can be seen as one of the most important indicators of practical public satisfaction with a human and employment environment.

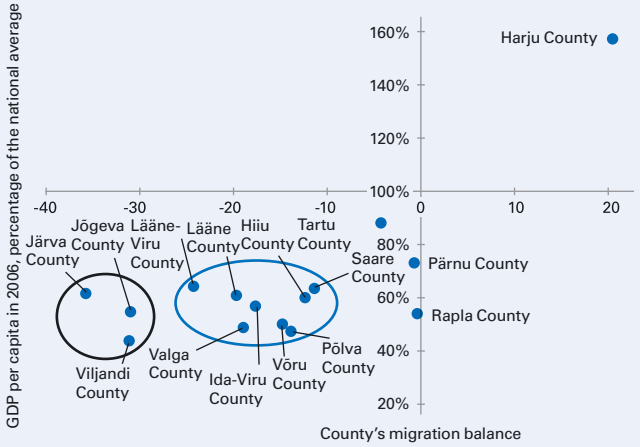
According to national statistics, the number of residents of Harju County increased between 2000 and 2008 by 27,300 people who moved to the region from other counties. During the period 2003–2008, the annual migration balance of the other counties has been consistently negative (except for Pärnu County in 2005–2007, Hiiu County in 2006, and Tartu County in 2007). In absolute numbers, Ida-Viru County and Viljandi County lost the most residents. Similar tendencies also occur in the case of young adults. In terms of the migration of people aged 25–29, Harju County is the only region to have a positive balance and between 2005 and 2008, 800–850 young

Map 3.5.1. Migration balance coefficient in Estonia's cities and rural municipalities, 2005–2008



Source: Population Register, Statistics Estonia

Figure 3.5.1. The counties' relative level of GDP compared to the national average and the counties' migration balance (2005–2008)



Source: Statistics Estonia, Population Register

people belonging to this age group were added to the population of the county on an annual basis (see Map 3.5.1).

Combining the data from the Population Register on the changes in the population sizes of local government units with the statistics on births and deaths allows us to assess the rate of migration at the local government unit level. An analysis of the data available for 2005–2008 confirms the direction of the migration from other counties to Harju County. There are clear indications that the rural municipalities located near cities such as Tallinn, Tartu and Pärnu are attractive human environments (see Map 3.5.1).

An examination of people's overall migratory behaviour and the relative level of the GDPs of counties on a common field (see Figure 3.5.1) reveals a connection between people's preferences with regard to human environment and the socio-economic development of regions. The clearest boundary exists between Harju County and the rest of the country. Significantly smaller differences exist between Tartu County and Pärnu County and the rest of the counties. These arise from the fact that the socio-economic development of the former two counties is closer to the national average, which has made it possible to slow down the decrease in their populations. This, along with other factors, is important from the standpoint of maintaining a regions inherent potential for development. In the case of Rapla County, the stability in its population size has been achieved largely due to the proximity of Harju County. The rest of Estonia's counties can be divided into two groups, based on the negative influence of migration on their population situation. While we are only looking at the recent past, it must be taken into consideration that the values of the migration balance coefficient also reflect the impact of migration that occurred during previous periods on the population structure. Emigration from different counties did not occur simultaneously and the counties are at different stages of the cycle.

In summary, the socio-economic and institutional imbalance of regional development and people's migratory behaviour, which further increases the imbalance, provide evidence that changes must be made in the organisation of Estonia as a country in order to provide peo-

ple with different needs in all of Estonia's regions with the opportunities necessary to lead full lives and work in their preferred field, regardless of where they live.

The division of responsibilities between the state and regional levels, i.e. the delegation of state duties to regional and local decision-making levels is the most important aspect of ensuring the sustainability of the changes. The delegation of duties necessitates the expansion of regional financial autonomy, which would provide the regions with more opportunities for shaping their revenues. The goal should be to reduce the extent of project-based approaches in regional policy so that the final decisions related to regional development priorities are made autonomously at the regional level, rather than by the government or state implementing agencies.

According to the administrative arrangement currently in effect, the state can only share responsibilities in regions with local government units. As we know, however, Estonia's local governments have very different capacities for assuming responsibility, contributing to the country's regional development, and creating human environments that satisfy the needs of their residents. In order for the organisation of the local governments to ensure the equal provision of local public services in the entire country, the fulfilment of mandatory duties should be within the powers of all local governments. Due to the widely varying capacities of local government units for organising their activities and performing administrative duties, we are facing a situation where the current administrative burden is too heavy on less capable units. However, decreasing the administrative burden would mean that the administrative potential of more capable local government is left unused and their potential is wasted. The broadening of the duties of local governments at the expense of state functions is difficult.

Equalising the capabilities of local governments poses the least danger to local socio-economic development if the duties of the local governments are divided into at least two categories – primary duties and regional duties. In general, the most convenient level for the performance of regional duties overlaps with Estonia's county-based division. County centres are the most significant points of convergence for everyday socio-economic relations. Furthermore, it would be more economical and efficient to organise the provision of several types of important public services that do belong or could to the sphere of responsibility of local governments (e.g. upper secondary education and vocational education, public transport, issues related to enterprise and the labour market, integration) at the county level.

The performance of local governance at the county level should not mean the abolition of cities and rural municipalities as units of local government. Any changes in the administrative arrangement must avoid damaging local conditions for socio-economic development, including the weakening of local leadership, and must ensure that the population has the opportunity to participate in the shaping of policies. Efforts should also be made to avoid the deterioration of the availability of services for the population and the depletion of the job structure (due to the unnecessary concentration of public sector jobs which leads to changes of residence or the wasting of people's competence in the labour market). However, it is necessary to consolidate the rural municipalities and cities to a degree that ensures their ability to provide primary services. As indicated by the data, the most serious problems related to socio-economic development occur in local government units outside urban areas, or the so-called periphery. The consolidation of county centres therefore involves the risk of the periphery remaining fragmented, which would lead to a further increase in intra-county differences between local government units.

The strengthening of regional administrative capacity is possible both through increasing the efficiency of institutionalised cooperation and through the alteration of administrative-territorial organisation. The latter course would entail the merging of cities and rural municipalities and the establishment of the county as a new type of local government unit. Estonia's current experiences with the effectiveness of collaboration between units of local government do not guarantee the successful implementation of this cooperation model everywhere across the country. The success of the cooperation depends too much on local leaders, passing needs and external factors. Since cooperation itself requires sufficient administrative capacity, the consolidation of the primary level of local governments is necessary in any case, even if the cooperation model is implemented at the higher county level. Thus, Estonia should choose and put into practice a two-level local government system.

Sharing responsibilities with regions does not relieve the state of the responsibility to ensure development and balance of the regional system as a whole. The policy of voluntary administrative integration of local government units in effect so far has demonstrated that the equalisation of the institutional capacity of local government units is not achievable without the decisive intervention of the state. In addition to its negative impact on regional development, the current state of affairs has resulted in the inexpedient use of public resources and high social costs.

It is also certain that the possible and advisable administrative reform will not solve all of the problems related to the imbalance of regional development and local human environments. It will simply be one step towards a more complex society that will provide people with more diverse opportunities in their human environment and better conditions for self-realisation in different cities and rural municipalities and at different regional levels, ranging from their homestead to the global village.

References

1. Amin, A. (2004). An Institutionalist Perspective on Regional Economy Development. Reading Economic Geography
2. Barca, F. (2009). An Agenda for a Reformed Cohesion Policy. A place-based approach to meeting European Union challenges and expectations. Independent Report prepared at the request of Danuta Hübner, Commissioner for Regional Policy
3. Regional Development Strategy of Estonia 2005–2015

4. Haljaste, K.-L., Noorkõiv, R., Sepp, V. (2007). Investments and financial capability of local governments: situation and its influence on development activities. Statistics Estonia, pp. 8–39
5. Heidenreich, M., Wunder, C. (2008). Patterns of Regional Inequality in the Enlarged Europe European Sociological Review, Vol. 24, No. 1, pp. 19–36
6. HM Treasury (2003). A modern regional policy for the United Kingdom
7. Hoffmeister, O. (2009). The spatial structure of income inequality in the enlarged EU Review of Income and Wealth Series 55, Number 1
8. Jauhiainen, J. (2002). Analysis of the development potential of Estonia's urban areas
9. Martin, R., Sunley, P. (2006). Path dependence and regional economic evolution. Journal of Economic Geography 6, pp. 395–437
10. Nischalke, T., Höllmann, A. (2005). Regional Development and Regional Innovation Policy in New Zealand: Issues and Tensions in a Small Remote Country. European Planning Studies, Vol. 13, No. 4, pp. 559–579
11. Oliver, J. (2007). Public Services: Expectations, Performance and Satisfaction: Full Research Report ESRC End of Award Report, RES-153-25-0036. Swindon: ESRC
12. Paas, T., Schlitte, F. (2006). Regional Income Disparities and Economic Growth: Convergence or Divergence within the EU-25?, Business Integration in Local Economies. COPE (Congress of Political Economists) Publications, eds. M. Kozlowski and A. Kacprzyk, pp. 65–82
13. 2007–2013 National Strategic Reference Framework for the EU Structural Funds
14. Sepp, V. (2008). Kohaliku omavalitsuse üksuste haldussuutlikkus ja seda mõjutavad tegurid. Järvamaa pilootuuring
15. Sepp, V., Noorkõiv, R. (2009). Kohalike omavalitsuste suutlikkusest täita sotsiaalkaitse ülesandeid. Sotsiaaltöö 4
16. Sepp, V., Noorkõiv, R., Loodla, K. (2009). Estonian Local Government Capacity Index: methods and results, 2005–2008. Cities and rural municipialities in figures. Statistics Estonia, pp. 10–42
17. Storper, M. (1995). The Resurgence of Regional Economies, Ten Years Later. European Urban and Regional Studies, Vol. 2, No. 3, pp. 191–221
18. Tammaru, T., Leetmaa, K. (2007). Suburbanisation in relation to education in the Tallinn metropolitan area. Population, Space and Place 13:4, pp. 279–292
19. Tammaru, T., Kulu, H. (2003). Ränne üleminekuaja Eestis. Tallinn: Statistics Estonia
20. University of Tartu (2009). Final report of the survey Eesti regioonide majandusstruktuuri muutuste prognoos
21. Thrift, N., Amin, A. (1995). Institutional issues for the European regions: from markets and plans to socioeconomics and powers of association Economy and Society, Vol. 24, pp. 41–66

CHAPTER 4

Social environment and the labour market

4.1. Introduction

The quality of life and people's opportunities for self-fulfilment are influenced directly by the institutional environment which, in addition to political and economic components, also relies significantly on the institutions of the labour market (regulation of the protection of employees, the strength/weakness of labour unions, regulations related to wages, collective agreements, labour policy, etc.). The institutional environment also comprises the education system, including the opportunities provided for various socio-demographic groups for lifelong learning.

The nature and development of the institutional environment indicates whether and how much we value society's human assets. In the case of Estonia, the human asset problem is exacerbated by the country's small and aging population. The issue is not dependent solely on population policy decisions. In comparison with other countries we see the importance of the quality of our human capital – its abilities and skills related to keeping up with the changes in the world, which, in turn, affect the society's sustainability.

Since the development of the institutional environment has been based on the ideology of a liberal market economy, it has been impossible to create a social environment that would have narrowed the gaps between social groups. There were no significant changes in this regard during the economically successful years.

Estonia continues to be characterised by strong social stratification (the Gini coefficient, used as an income inequality indicator, has remained at a level of 34–37 during the past decade, although it stood at 31 in 2007). During the years of economic growth, the inequality between the people in the highest 20% income bracket and those in the lowest 20% income bracket decreased in Estonia. However, the difference remained among the largest in Europe in 2007 (the European average was 4.8 compared to Estonia's indicator of 5.5). The same indicator was 3.4 in Sweden and 6.3 in Portugal (Indicators of Sustainable Development 2009).

Estonia is also characterised by serious educational stratification which hinders people's opportunities for self-fulfilment and complicates the improvement of their social status. Furthermore, the Estonian education system tends to develop "on its own", separately from the specific labour force needs of businesses. Although one aspect of the problem is related to the realisation of an individual's abilities and wishes, the question on the national level concerns the rational use of labour force, which is especially important due to Estonia's small population.

In addition to the aforementioned institutional environment, the labour market is also affected by subjective factors – people's attitudes, opinions, views of themselves and their environment. The development of these factors is, in turn, influenced by social background as well as various other sources (e.g. working environment, education system, both formal and informal). The subjective factors may encourage people to aspire towards higher goals and thereby change their status, but may also complicate this process and thereby hinder both intergenerational mobility (how well the children's generation does in comparison with their parents' generation) and intragenerational mobility (what social position people reach at the end of their lives). Both also have a significant bearing on how open or closed the society is.

The aim of this chapter is to provide an overview of the links between the social environment and the labour market during the last decade and, if necessary, a longer period of time, by discussing all of the above-mentioned aspects and attempting to provide answers based on specific data sources to questions concerning how the development has taken place, what factors have affected it and where the society will stand if the current trends continue.

References

1. Indicators of Sustainable Development (2009). Tallinn: Statistics Estonia

4.2. Institutional environment and its effect on stratification

Benign post-war narratives (according to which the Western world was steadily moving towards decreasing inequality, more equal opportunities, and the attenuation of class conflicts and interclass differences) have in recent decades been replaced with critical narratives that underline the deepening of social inequality and stratification (Grusky, Ku 2008).

The increase in inequality has been documented in the case of a number of very different processes and has been explained by various reasons (globalisation, deindustrialisation, segmented assimilation, non-conscious discrimination, etc.) based either on the functioning of market-based mechanisms (e.g. the reduced demand for low-skilled workers bringing about the polarisation of the unemployment risks) or the consequences of political choices (especially those made in accordance with neoliberal principles).

The typology of welfare states proposed by Esping-Andersen (1990) has become the standard tool used in the case of international comparisons related to stratification. Based on the nature of the relationship between the state, the market and the family as the sources of welfare, Esping-Andersen divided capitalistic welfare countries into three groups: liberal states where welfare is ensured through successful market competition (for example the USA, the UK); corporatist states where welfare differences related to class and status develop through the joint effect of the market, the state (and often also the church) and the traditional family unit (for example Germany, France, Italy); and social democratic states (the Nordic countries, Canada) where the state uses redistribution mechanisms to provide all members of the society with an acceptable standard of living as well as development opportunities that are independent of market mechanisms (have been "decommodified"), for example free education. Esping-Andersen's typology of welfare states contributed to the understanding of the relationship between social stratification and the institutional order of a society by focusing on the role of the entire closely interrelated historically grown country-specific system, rather than that of separate institutions (Nelson 1995; Mayer 2001). There is an increasing trend of treating entire economic systems as institutional "packages"similar to the treatment of types of welfare states described above (Hall, Soskice 2001; Beckert et al. 2006).

Such institutional packages function as "filters" for risks developing domestically (for instance, as a result of the functioning of the market economy) as well as internationally (risks resulting from globalisation), mediating the influence of global and local market forces on individuals (Regini 2000). The nature of the institutional packages determines which people, and to which degree, are exposed to certain risks (DiPrete et al. 1997).

Significant institutions that affect stratification include the education system, employment relations and family.

In modern societies, education is seen as the most important determinant of social position as well as a prerequisite for social mobility, avoiding unemployment, etc. The extent and particular nature of its effect (to what degree it promotes or reduces inequality) depends on the organisation of the education system.

Employment relations structure the processes of class formation, opportunities for social mobility, the distribution of unemployment risk, etc. The nature of employment relations depends both on the legislation as well as the role of social partnership in intermediating the relationships between individual employers and individual employees (whether, by whom and how the interests of the social partners are protected, at what level the relationships are regulated, which segment of the employees is protected, etc.).

A distinction is usually made between closed and open employment relations. In the case of closed employment relations, certain more vulnerable groups are better protected from risks in the labour market: this is either due to powerful trade unions, certain segments in the labour market (internal labour markets) or the prevalence of the so-called service employment contract (the latter criterion was used as the basis of the widely implemented Erikson, Goldthorpe and Portocarrero class scheme – see Erikson, Goldthorpe 1991). Open employment relations are market-centred and lack the aforementioned (institutional) mechanisms designed to protect individuals from market forces.

The family plays a crucial role in the advancement of opportunities for their off-springs in society, mainly through the creation of types of capital that affect the stratification process. The more young people's educational paths depend on their parents' wealth, the less equal the educational outcomes are, although the cultural and social capital of the parents also plays an important role (Devine 2004). The effect of the family on the development of young people's abilities, aspirations and ambitions as well as on the way they make rational choices is also considered significant (Boudon 1974).

The above-mentioned institutional packages also differ by welfare state type based on the citizens' consensus regarding specific institutional solutions. Thus, for example, in Germany the dominance of vocational education and a stratified secondary education system are accompanied by strong employment protection. Furthermore, the welfare state influences the stratification processes, providing people with opportunities for decommodification through social programmes.

This notion of the role of the institutions assumes the stability of social systems and the gradual nature of social change. In this sense, the processes taking place in Estonia as well as other transition countries can be seen as a natural experiment which makes it possible to analyse the effect of "former" institutional solutions, previously gained experiences and/or resources in a fundamentally transformed institutional context where "the contexts changed suddenly while the persons involved remained the same" (Mayer 2006: 5).

Providing people with the certain sets of labour market opportunities, the education system influences the patterns and outcomes of intragenerational as well as intergenerational social mobility in important ways.

While the effect of the education system on the intragenerational mobility has been discussed quite a lot in public discourse, there has been much less discussion regarding the extent to which the existing education system contributes to the intergenerational transmission of inequality. As to employment relations during the economic reforms in Estonia, the presumed rigidity of the labour legislation did not substantially diminish the real power held by employers over the employees. It is not at all surprising that the issue of the rigidity of the labour market regulations was brought up by the employers during the period of economic growth.

Until the implementation of unemployment insurance, Estonia's labour market was characterised by a very weak protection of the unemployed. In addition, very few resources were allocated in Estonia to implementing active labour market measures. In this sense, Estonia's social policy further fostered the dominance of the employer over the employee, resulting in low wages and one of the highest levels of inequality in Europe. Since the keyword for the following analyses is "polarisation" or the deepening of inequality, especially during the periods of economic depression, we must recognise the fact that Estonia's institutions do not act as filters for "market influences". It is important to consider whether the market-centeredness of the institutions is a choice based on a consensus reached by the society. However, the recent book *Sotsiaalse õigluse arusaamad Eesti ühiskonnas* (*Notions of Social Justice in Estonian Society*) (Plotnik 2008) regrettably reveals the opposite to be the case.

References

1. Beckert, J., Ebbinghaus, B., Hassel, A., Manow, P. (eds.) (2006). Transformationen des Kapitalismus. Frankfurt: Campus
2. Breen R. (1997). Risk, decommodification and stratification. Sociology 31, pp. 473–489
3. Devine, F. (2004). Class Practices. How Parents Help Their Children Get good Jobs. Cambridge: Cambridge University Press
4. Boudon, R. (1974). Education, Opportunity and Social Inequality. New York: Wiley
5. DiPrete, T., de Graaf, P. M., Luijkx, R., Tåhlin, M., Blossfeld, H.-P. (1997). Collectivist versus Individualist Mobility Regimes? Structural Change and Job Mobility in Four Countries. American Journal of Sociology 103, pp. 318–58
6. Erikson, R., Goldthorpe, J. (1992). The Constant Flux: A Study of Class Mobility in Industrial Societies. Oxford: Oxford University Press
7. Esping-Andersen, G. (1990). The Three Worlds of Welfare Capitalism. Princeton University Press
8. Grusky, D. B., Ku, M. C. (2008). Gloom, Doom and Inequality. In Grusky, D. B. (ed.) Social Stratification: Class, Race, and Gender in Sociological Perspective, Boulder: Westview, pp. 2–28
9. Hall, P.A., Soskice, D. (eds.) (2001). Varieties of Capitalism. The Institutional Foundations of Comparative Advantage, Oxford: Oxford University Press
10. Mayer, K. U. (2001). The paradox of global social change and national path dependencies: Life course patterns in advanced societies. In A. Woodward and M. Kohli (eds.) Inclusions and Exclusions in European Societies, New York: Routledge, pp. 89–110
11. Mayer, K. U. (2006). After the Fall of the Wall: Living Through the Post-Socialist Transformation in East Germany. In Diewald, M., Goedicke, A. and Mayer, K.U. (eds.) After the Fall of the Wall. Stanford: Stanford University Press, pp. 1–28
12. Plotnik, H. (ed.) (2008). Sotsiaalse õigluse arusaamad Eesti ühiskonnas. Tartu: Tartu University Press
13. Regini, M. (2000). Between deregulation and social pacts: The responses of European economies to globalization. Politics and Society 28, pp. 5–33

4.3. Social stratification according to people's subjective assessments

People perceive the society in which they live very differently. Individuals understand the social hierarchy that defines the basic nature of the society as well as their own social position based on their subjective experience and values. Studying people's self-estimation using the scale of social hierarchy allows us to find out how people view their social status and where they feel they belong.

There are several aspects that make the treatment of this issue important. Earlier studies conducted in other countries have shown that people's assessment of their social position affects their political views and thus also their behaviour (for example, in elections). People's perception of social position is also connected to other aspects of their daily life, such as their state of health, labour market options, even their lifestyle, etc. (Adler et al. 2000).

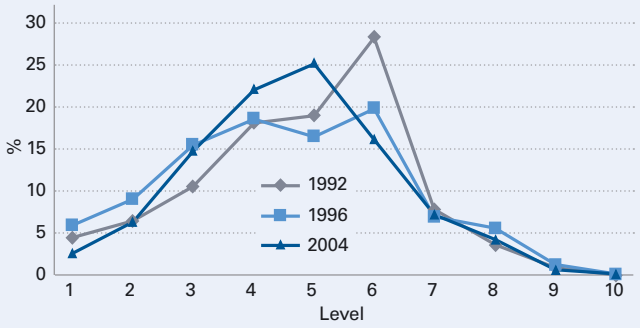
An individual's assessment of his or her subjective social position comprises various factors and is affected by the culturally dominant values as well as the individual's social experience. It has also been found that the more affluent a society is and the lower its unemployment rate, the higher people perceive their position to be in the social hierarchy (Evans, Kelley 2004).

Other important factors include the actions of the state and its institutions in influencing people's perceived social position. This may be expressed in various ways: e.g. both through redistributive policies that reduce material inequality and make the society more egalitarian and through effective labour market policies that help reduce unemployment.

Perceived social position

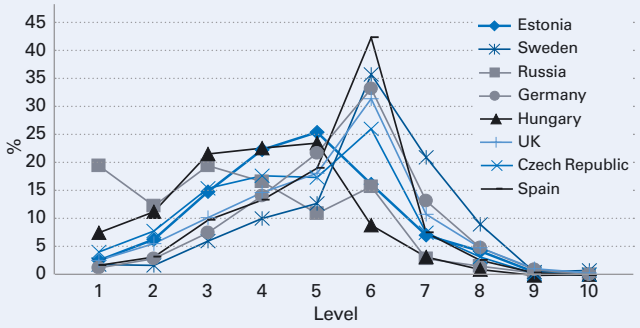
Sociological studies commonly use a 10-degree scale for measuring people's perceived social position and ask the

Figure 4.3.1. The perceived social position of the Estonian population in 1992, 1996 and 2004



Source: authors' calculations based on the International Social Justice Project (1992, 1996) and the Social Justice Study (2004)

Figure 4.3.2. The perceived social position of the inhabitants of various European countries



Source: Estonia – the authors' calculations based on the Social Justice Study (2004); other countries – the International Social Survey Project, social inequality module 1999.

respondents to determine their position on that scale. This methodology has been used in several studies conducted in Estonia (see Pettai 2002; Lauristin 2004; Lindemann 2007).

This analysis will add a temporal dimension to the previous studies and compare their results with those of studies conducted in other European countries. The data on Estonia has been taken from the International Social Justice Project (1992, 1996) and the Social Justice Study (2004) conducted by the Tallinn University Institute of International and Social Studies. Data from the inequality module of the International Social Survey (1999) has been used for international comparisons.

Figure 4.3.1 confirms that people's perception of their social position changed relatively little between 1992 and 2004. People tended to place themselves in the middle or somewhat below the middle of the social hierarchy. However, people viewed their social position as somewhat higher in 1992 compared to the subsequent years. In 1992, nearly 30% of the respondents placed themselves on the sixth degree of the scale.

In later years, the percentage of people who positioned themselves between 3 and 5 on a scale of 10 has increased. This tendency has also been observed in other former socialist countries and it has been associated with the fact that during the initial period of economic and social change, people assessed their social position according to their (sometimes even utopian) hopes and expectations rather than their objective situation.

During the second half of the 1990s, however, people based their assessments far more often on everyday reality (Matêju, Večernik 1999). This means that during the first period of change people tend to maximize their social status, i.e. people overestimated their social position compared to their actual objective position (see also Yamaguchi, Wang 2002).

The fact that most people place themselves in the middle of the scale has been explained by the so-called reference group phenomenon (Kelley et al. 1992) – people perceiving the surrounding world as a magnified version of their reference group. When assessing their subjective social position, people compare themselves to their acquaintances who, however, form a relatively homogeneous group (similar professional status and level of education, incomes in the same range). This distorts people's understanding of their position in the social hierarchy.

The reason for the occurrence of the phenomenon is people's tendency to overestimate the number of people similar to themselves and their acquaintances in society as a whole. Thus, most people position themselves near the middle of the social hierarchy. At the same time, research has hitherto only partially confirmed the reference group theory. The weak point of this approach is regarding the reference groups as overly homogeneous (Evans, Kelley 2004).

Compared to developed industrialised countries, the people who live in Estonia have a lower opinion of their social status (see Figure 4.3.2). While in Sweden, for example, nearly a third of the population positioned themselves on the four topmost levels of the hierarchy, the corresponding figure among the Estonian population was only 12%, i.e. almost one third of those in Sweden.

Furthermore, more people perceive themselves as being situated at the lower end of the scale in Estonia, than in Sweden, Germany, Spain and the United Kingdom. A tendency similar to Estonia also manifests itself in other post-socialist countries, although there are significant differences between transition countries.

The percentage of people who position themselves on the three lowest levels of the scale is significantly higher than the percentage of people who perceive themselves as belonging to the three highest levels of the scale in all post-socialist countries. The people of the Czech Republic are the most positive in their assessments, followed by those living in Estonia and Hungary. While more than a quarter of the population of the Czech Republic is of the opinion that they belong to the sixth level of the hierarchy, the inhabitants of Estonia and Hungary tend to position themselves on the fourth and fifth levels of the hierarchy instead.

Russia differs clearly from the other transition countries due to the fact that the subjective status of its population is substantially lower compared to developed Western countries as well as other post-socialist states. At the same time, it has to be taken into account that the data on other post-socialist countries was collected five years earlier than the data on Estonia.

Different social groups on their position

Our analysis indicates that there are no significant differences between men and women in their perception of their social position (see Annex 1). Age, however, clearly affects people's subjective social position. Compared to older people, younger people tend to place themselves consider-

ably higher in the hierarchy. The differences between age groups have increased consistently.

Similar differences are also characteristic of other post-socialist countries. In developed Western countries there is an opposite trend: it is people between the ages of 45 and 60 who tend to place themselves higher in the hierarchy (Evans, Kelley 2004). Moreover, the differences between age groups are noticeably smaller in Western countries.

As expected, people with higher levels of education also have higher opinions regarding their social position. The differences between groups based on education have remained relatively steady over the years. People's perception of their social status is also affected considerably by their labour market situation and occupational position. The respondents who position themselves highest in the hierarchy are school and university students, whose assessment is probably influenced substantially by their expectations with regard to their future position in society and possibly their social background, which is likely to be higher than that of the population as a whole.

Pensioners and the unemployed have the lowest opinion of their social position. Compared to other occupational categories, the self-perceived social position of managers and professionals is significantly higher. The assessment provided by service workers of their social position does not differ from that of skilled workers, which points to the proletarianisation of the lower-level white collar professions. As expected, workers engaged in elementary occupations place themselves lower on the scale compared to other occupational categories, although they still rank themselves higher than the unemployed and pensioners.

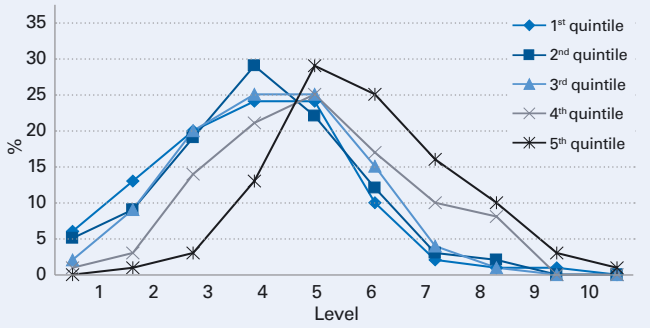
An analysis of the association between income and subjective social position reveals a clear tendency: the higher a household's income is, the higher the individual belonging to that household believes his/her social position to be. In 1992, the self-opinion of people earning the lowest income clearly stood apart from the others, while the differences between the remainder of the income groups were relatively small. It can be presumed that this group was characterised by the greatest difficulties in coping, which resulted in their low self-esteem.

In 1996 and 2004, however, lower-income respondents were not differentiated as clearly and instead, the people belonging to the three lowest income quintiles had a uniformly low opinion of their social position (especially in 2004). On the other hand, there is a trend of people with the highest income having a considerably more positive opinion of their social position than the rest of the respondents. In 2004, it was primarily the top two income quintiles that differed from the others. This is confirmed by Figure 4.3.3 which indicates that while nearly a third of the respondents with the highest income placed themselves on the four top levels of the social hierarchy and nearly a fifth of the people in the second highest income quintile provided the same answer, only a few respondents in the lower income quintiles perceived themselves as belonging to the higher levels of society.

Drawing a comparison with developed Western countries, the self-perception of the members of the highest income quintile in Estonia is similar to the general self-perception of the population of Sweden.

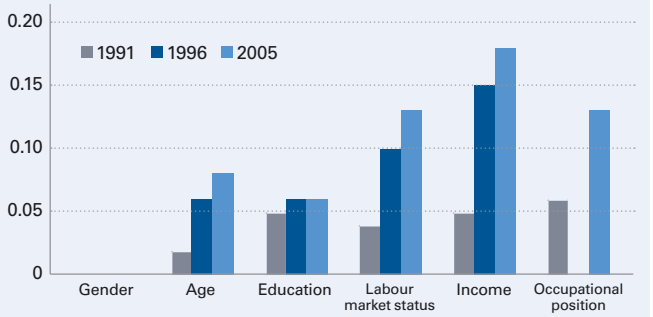
The data provided in Figure 4.3.4 indicates the extent to which different objective characteristics affect Estonia's inhabitants' perceptions of their social position in different years.

Figure 4.3.3. The perceived social position of people belonging to different income quintiles in 2004



Source: authors' calculations based on the Social Justice Study (2004)

Figure 4.3.4. The importance of the effect of different objective characteristics* on the perceived social position of Estonia's inhabitants in 1992, 1996 and 2004



** The descriptive power of each characteristic presented in the figure is based on linear regression analysis (we created a separate model for each characteristic); the number indicated in the figure shows the extent to which people's opinion of their social position depends on the characteristic in question.*

Source: authors' calculations based on the International Social Justice Project (1992, 1996) and the Social Justice Study (2004)

While different characteristics had a more or less equal effect on perceived social position at the beginning of the 1990s, a clear hierarchy of factors had developed by 2004: income, professional position and financial situation had become very important for the respondents. There had also been a clear increase in the influence of the age group, while the effect of the respondents' level of education had remained at the level it was on at the beginning of the 1990s. Thus, people increasingly tend to define their social status on the basis of their income and professional position.

A comparison of the Estonian data with the data collected in other European countries reveals that Estonia and Bulgaria are two countries where income is especially important for people as an indicator of their position in the social hierarchy (see Table 4.3.1). In the case of Estonia it is evident that the effect of education on the perceived social position is less significant than in other countries subjected to the analysis. Demographic indicators (gender and age) play a more important role in post-socialist countries than, for example, in Sweden and Spain. Specific occupational categories seem to affect the perception of social position primarily in Estonia and Sweden.

Table 4.3.1. The importance of the effect of different characteristics on the perceived social position in different countries, multiple determination coefficients*

	Model 1 (M1)	Model 2 (M2)	Model 3 (M3)	Model 4
	Gender, age	M1 + education	M2 + occupational position	M3 + income
Estonia	0.09	0.11	0.18 ⟶	0.30 ⟶
Hungary	0.07	0.14 ⟶	0.16	0.20
Bulgaria	0.08	0.16 ⟶	0.18	0.29 ⟶
Sweden	0.01	0.13 ⟶	0.22 ⟶	0.25
Spain	0.04	0.13 ⟶	0.14	0.17

** The arrows in the table show the effect of the addition of different characteristics on the descriptive power of the model, thus prioritising the characteristic on the basis of which people evaluate their social position.*

Source: Prepared on the basis of Mändla (2007)

Conclusion

Based on objective indicators, the level of stratification of the Estonian population is considered to be very high. The objective situation is also reflected in people's subjective self-assessment. Most people in Estonia see themselves as belonging to the middle or lower levels of the scale of social hierarchy and the rapid development of the economy during the past decade has not had any noticeable positive effects on people's perception of their social position.

The increased influence of various objective factors on perceived social position should also serve as confirmation of the deepening differentiation in Estonian society by age group, professional position and income. The effect of income on people's perceived position in the social hierarchy is much greater in Estonia than in most other European countries.

References

1. Adler, N. E., Epel, E. S., Castellazzo, G., Ickovics, J. R. (2000). Relationship of Subjective and Objective Social Status With Psychological and Physiological Functioning: Preliminary Data in Healthy White Women. Health Psychology, 19(6), pp. 586–592
2. Evans, M. D. R., Kelley, J., Kolosi, T. (1992). Images of Class: Public Perceptions in Hungary and Australia. American Sociological Review, 57(8), pp. 461–482
3. Evans, M. D. R., Kelley, J. (2004). Subjective Social Location: Data from 21 Nations. International Journal of Public Opinion Research, 16(1), pp. 3–38
4. Lauristin, M. (2004). Eesti ühiskonna kihistumine. Kalmus, V., Lauristin, M., Pruulmann-Vengerfeldt, P. (toim.) Eesti elavik 21. sajandi algul: ülevaade uurimuse Mina. Maailm. Meedia. tulemustest. Tartu: Tartu University Press, pp. 31–43
5. Lindemann, K. (2007). The Impact of Objective Characteristics on Subjective Social Position. Trames: Journal of the Humanities and Social Science 1, pp. 54–68
6. Matěju, P., Večernik, J. (1999). The renewal of the middle class and its political circumstances. Ten Years of Rebuilding Capitalism: Czech Society after 1989. Prague: Academia, pp. 207–227
7. Mändla, T. (2007). Indiviidi subjektiivset sotsiaalset seisundit mõjutavad faktorid eri riikides. Bachelor's thesis. Tallinn University
8. Pettai, I. (2002). Kihistumine kui probleem. Vetik, R. (ed.) Kaks Eestit. Tallinn: Tallinn Pedagogical University Press
9. Yamaguchi, K., Wang, Y. (2002). Class Identification of Married Employed Women and Men in America. American Journal of Sociology, 108(2), pp. 440–475

4.4. Increase in income differences during 1989–2009

Income is an important indicator that reflects the distribution of money between members of the society and the level of social stratification. The following wage analysis is based on Estonian Labour Force Survey results and provides an overview of the objective stratification dynamics of the Estonian society over the course of 20 years.

Figure 4.4.1 shows how the average wages of all occupational categories have grown since 1989. The increase in average wages has been especially sharp during the last ten years. Despite the general increase in incomes, it is important to recognise that not all members of the society have shared equally in the growing prosperity. Economic inequality has grown in the Estonian society since the beginning of the 1990s. Estonia's Gini coefficient, an income inequality indicator, grew from 27.7 points to 39.6 points in 1989–1995. The Gini coefficient decreased somewhat at the beginning of this century, but was still at the relatively high level of 35.8 points in 2004. According to Statistics Estonia, the indicator dropped to 30.9 points by 2007.

Stratification by occupational categories

During the past couple of decades, Estonia's social and economic environment has been modified to a considerable degree and there have been important structural changes, for example in the structure of the labour market. These changes indicate which type of human resource is needed and valued most.

The American sociologist David Grusky (1994) is of the opinion that in contemporary societies, stratification takes place primarily at the level of occupational categories, and occupational categories in turn can be considered the key elements of stratification. Thus, income differences can be viewed as a consequence of the position of a certain profession in the existing structure. This chapter focuses on the analysis of occupational categories and attempts to find out how large the income differences are both between and within occupational categories.

Figure 4.4.1 shows that the general increase in average wages has coincided with a significant growth in income dif-

ferences between occupational categories. While the income differences between various occupational categories were relatively small in 1989 (varying from 219 roubles in the case of unskilled workers to 449 roubles in the case of managers), the wage gap has gradually increased since the 1990s. The largest gap between the wages of different occupational categories appeared in 2009 (data for quarters 1–3), when the difference between the incomes of workers engaged in elementary occupations and managers had become almost threefold.

The increase in the average net income has been the fastest in the case of managers. Although wage differences have also grown in the case of other occupational categories, their income differentiation has been more stable than that of the managers. Compared to the other occupational categories, the increase in income during the past decade has been slower for elementary occupations, service and sales workers, skilled agricultural and fishery workers, and general office clerks.

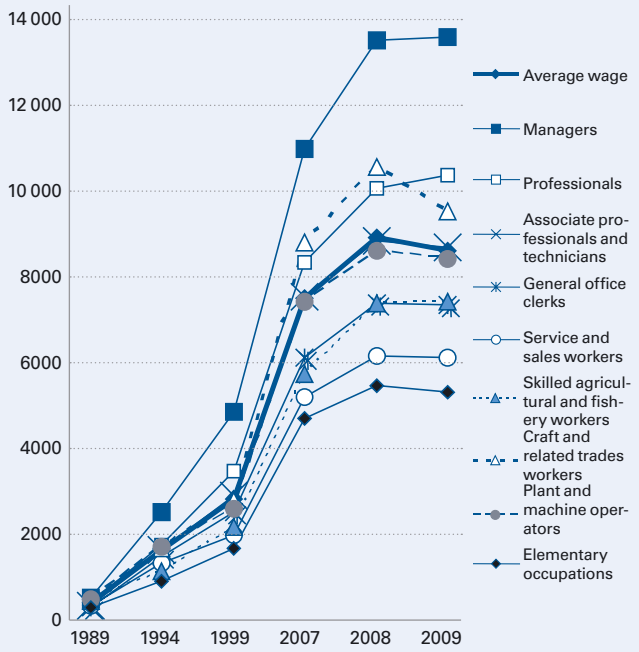
Special attention should be paid to income dynamics during 2008 and 2009, i.e. the period when the effect of the economic crisis was felt strongly in the Estonian society. It is clear that the wage growth stopped for most occupational categories in 2009, and certain categories faced wage cuts. Professionals were the only group to experience a slight increase in income. This might be due to the fact that many professionals work in fields that were initially less affected by the economic crisis, for example the public sector and the IT sector. However, the economic crisis can be expected to affect professionals as well, although the impact will come somewhat later than, for example, in the case of craft and related trades workers. How serious the effect of the crisis will be is open to question (the wages of craft and related trades workers fell by approximately 10% in 2009).

Since the value of money has changed over time, it is difficult to compare real wages objectively. Figure 4.4.2 displays the wages of occupational categories in relation to the average net income (average wage = 1), making it possible to assess the relative positions of different groups in the income hierarchy.

The results show that the managers have had a higher than average income throughout the entire period in question. The difference was especially large in 1999, after which the gap decreased somewhat. Although the wages of professionals were below average in 1989, their income has been higher than average since 1994. The wage levels of associate professionals and technicians remained relatively close to the average income in all of the years represented in the figure. The wages of general office clerks, service and sales workers and elementary occupations, however, remained below average during the whole period. The decrease in the wages of skilled agricultural and fishery workers has been steep, seeing as their income was above average in 1989, but had dropped well below average by 1994. The wages of this occupational category shifted closer to the average income level in 1999–2009. The income of plant and machine operators dropped over time from a higher than average level back to a level close to the average. The wages of unskilled workers have been furthest below the average for the entire period in question.

While the income differences ranged between 1.279 and 0.624 in relation to the average in 1989, the gap had increased considerably by 1994 (1.557 and 0.532) and had grown even more by 1999 (1.739 and 0.585). The gap in relation to the average income decreased to a certain extent in 2007, 2008 and 2009.

Figure 4.4.1. Average wages, 1989–2009

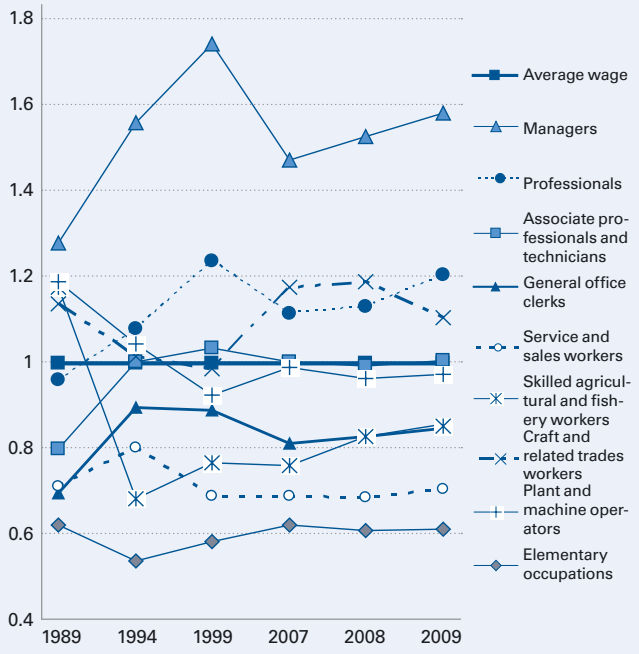


*Basis of calculation: Estonian Labour Force Survey 1995, 1999, 2007, 2008, 2009**

** 2009 data for quarters 1–3*

*** 1989 wages in roubles (1994–2009 wages in Estonian kroons)*

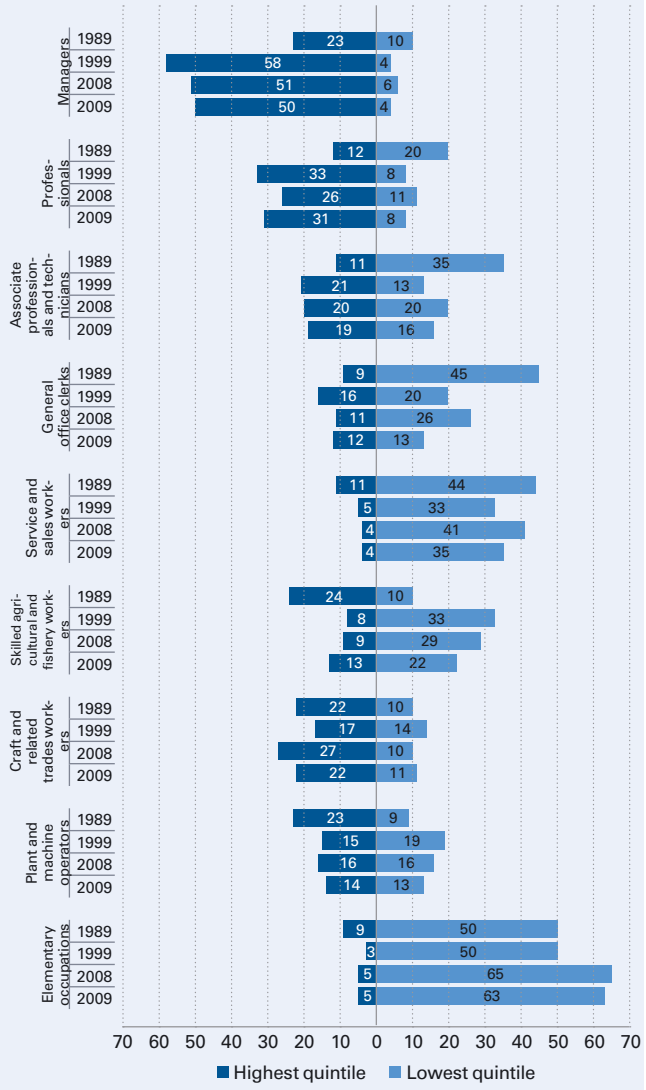
Figure 4.4.2. Average wages of different occupational categories in relation to the overall average net wage, 1989–2009



*Basis of calculation: Estonian Labour Force Survey 1995, 1999, 2007, 2008, 2009**

**data for quarters 1–3*

Figure 4.4.3. Income quintiles among occupational categories, %



Source: Estonian Labour Force Survey 1995, 1999, 2008, 2009 (I-III quarter)

Occupational categories and income quintiles

In discussing income differences it is also important to consider the distribution of occupational categories in terms of income groups (quintiles). In this instance, we will take into consideration the two polar income groups – the highest and the lowest income quintile.

Figure 4.4.3 shows how large a segment of each of the occupational categories belongs to the highest income quintile. While 23% of managers belonged to the highest income quintile in 1989, by 1999 the corresponding figure had increased to 58%. Since then, half of the managers have ranked in the highest quintile. These results once again confirm the considerable lead managers have compared to the other occupational categories.

In addition to managers, the percentage of professionals at the top of the income distribution hierarchy also more than doubled (from 12% to 31%). The increase in the case of associate professionals and technicians was slightly less than twofold (from 11% to 19%). The percentage of craft and related trades workers in the top income quintile has also increased somewhat.

Each year fewer skilled agricultural and fishery workers belong to the highest income group. Although 24% of the skilled workers engaged in the abovementioned fields belonged to the highest income quintile in 1989, the number had fallen to 8% by 1999. Their percentage had increased somewhat by 2009, but still only 13% of the profession group belonged to the top quintile. A similar trend is apparent in the case of plant and machine operators, elementary occupations as well as service and sales workers – in 2009, 14%, 5% and 4%, respectively, belonged to the highest income group.

The figure also provides information on how large a percentage of an occupational category belongs to the lowest income quintile. The biggest progress in exiting the lowest income quintile has been made by associate professionals and technicians as well as general office clerks, half of whose representatives managed to advance into a higher income quintile. However, one fifth of associate professionals and technicians and a little over a quarter of general office clerks still belonged to the lowest income quintile in 2008 and 2009.

A large number of skilled agricultural and fishery workers, plant and machine operators and elementary occupations fell into the lowest income group. In 1989, half of all elementary occupations belonged to the lowest income quintile. By 2008 and 2009, the lowest quintile already comprised two thirds of unskilled workers. Service and sales workers are the second most represented occupational category in the lowest income quintile after elementary occupations, with at least a third of their number belonging to the bottom level of the hierarchy.

It can therefore be said that the structural changes that have occurred in Estonia's economy over the course of two decades are also reflected in the stratification of the occupational categories. The development of the business environment brought about by the market economy primarily improved the position of managers and professionals in the labour market. The marginalisation of the industrial sector, however, caused a decline in the status of elementary occupations and skilled agricultural and fishery workers.

It is also useful to look at the changes in the positions of occupational categories during periods of economic growth and recession. An analysis of this issue reveals that the wages of skilled workers and artificers increased quickly during periods of economic growth, while downturns brought about abrupt decreases in their income. The wages of professionals, on the other hand, grew at the same pace as those of craft and related trades workers during years of economic growth, yet did not experience an equally sharp drop when economic setbacks occurred. The position of professionals therefore seems to be less unstable.

Income differences are a natural phenomenon in societies with market economies, where wages are adjusted according to the human assets and the principles of functionality. At the same time, it is known that the majority of the Estonian society (ca 90%) considers the current income differences to be excessive. This is true even in the case of groups with higher positions in the social hierarchy, such as managers and specialists, who believe that the differences between wages are too large (Lindemann, Saar 2008). Thus, the Estonian society is relatively unanimous in their opinions on the unfairness of the current level of income inequality.

The risk of unemployment

Another significant influence on people's sense of economic security, in addition to income differences, is employment. The results presented in Table 4.4.1 reflect the risk of unemployment by occupational categories. Elementary occupations are used as the reference group for this analysis and all other occupational categories are compared to them.

The results indicate that workers engaged in elementary occupations face the highest risk of unemployment. The situation is only somewhat more favourable for craft and related trades workers as well as plant and machine operators. Professionals and managers, on the other hand, are least exposed to the risk of unemployment. The risk of unemployment for craft and related trades workers rose sharply in 2009, exceeding the risk level for elementary occupations. This situation can be explained by the fact that the craft and related trades workers are widely represented in the construction sector, which was instantly and deeply affected by the economic crisis.

Table 4.4.1. Likelihood of unemployment by occupational categories (belonging to an occupational category as an unemployment risk factor, binary regression coefficients)

	1999	2007	2008	2009
Managers	–1.30***	–1.40***	–1.06***	–1.48***
Professionals	–2.00***	–2.40***	–1.30***	–2.20***
Associate professionals and technicians	–1.11***	–.74*	–.79**	–.86***
General office clerks	–.76**	–1.78*	–.54*	–.75**
Service and sales workers	–.44*	–.13	–.11	–.82***
Skilled agricultural and fishery workers	–1.03***	–1.32*	–.72	–.28
Craft and related trades workers	–.10	0.24	–.06	.42**
Plant and machine operators	–.26	–.24	–.45*	–.06
Elementary occupations (reference group)				

*Significant on the level: *** $p < 0.001$; ** $0.001 \leq p < 0.01$; * $0.01 \leq p < 0.1$*

Source: Estonian Labour Force Survey 1999, 2007, 2008, 2009 (quarters 1–3)

Conclusion

If we compare our current situation with that of 1989, when the preconditions for the restoration of independence and the transition to the market economy began to develop in Estonia, we can see that there has been considerable income growth and the wellbeing of people has increased significantly. However, not all members of the society have benefited equally from the growth of prosperity. Economic disparity between people has grown and over the years Estonia has developed into a country with one of the highest levels of inequality in Europe.

The wage gaps between occupational categories have increased significantly. Of all occupational categories, managers saw the fastest increase in their net income during 1989–2009, while others, such as elementary occupations, service and sales workers, skilled agricultural and fishery workers and general office clerks, experienced a slower wage growth. The advantage of managers over other occupational categories is also apparent when wages are compared to the average income – their position in the income hierarchy was and remains highest. The position of elementary occupations, on the other hand, has deteriorated on a yearly basis. Furthermore, the latter face the greatest risk of unemployment, while managers as well as professionals are also in the best position in this regard. However, it is likely that if the effects of the economic crisis persist, an increasing number of professionals will also be affected by the downturn.

References

1. Cornia, G. A., Addison, T., Kiiski, S. (2003). Income Distribution Changes and their Impact in the Post-World War II Period. Discussion Paper No. 28. United Nations University
2. Grusky, D. B. (1994). Social Stratification. Oxford: Westview Press
3. Lindemann, K., Saar, E. (2008). Suhtumine sissetulekute ebavõrdsusesse. H. Plotnik (ed.) Sotsiaalse õigluse arusaamad Eesti ühiskonnas, Tartu University Press, pp. 210–243

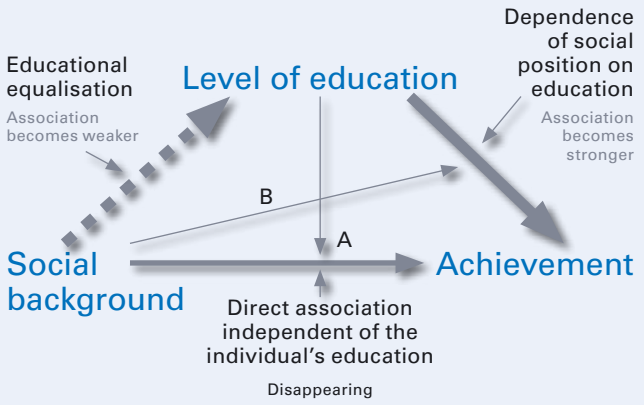
4.5. Intergenerational social mobility

Intergenerational mobility can be described as a process where the position of the younger generation in the social hierarchy is either higher or lower than the one held by their parents. The extent of intergenerational mobility as well as intragenerational mobility (the level individuals reach in the social hierarchy during their lifetime) has been considered an indicator of the openness of a society (Breen 2004, etc.). In order to determine a society's level of openness, we must examine the extent to which people's social position depends on their own achievements (acquired level of education) and compare it against the society's tendency to attribute social positions to people depending on their family background.

The triangle presented in Figure 4.5.1 helps illustrate the associations between family background, education and social position and demonstrate the changes that occur in these categories.

Research has shown that social mobility increases mainly during periods when a society undergoes large-scale structural transformations, e.g. in situations where the relative importance of a certain industry in the entire economic structure decreases. According to a liberal theory devised in the 1960s, industrialisation and modernisation should bring about a constant rise in social mobility (Treiman 1970). This hypothesis has later been revised due to the fact that most studies pointed to the temporary nature of the increased mobility that accompanied the early stage of industrialisation (Feathermann, Hauser 1978). The above-mentioned liberal theory is also related to the education-based theory of meritocracy developed by US sociologists in the 1960s and 1970s (Bell 1972). According to the latter theory, the connections represented as a triangle in Figure 4.5.1 should change over time in developed industrial countries. The expansion of education should reduce the effect of family background on education and thereby increase the equality of educational opportunities. At the same time, there should be an increase in the effect of education on the social position an individual reaches, since social selection should be

Figure 4.5.1. Associations between an individual's education, social position and social background: assumptions regarding developed industrial countries



Source: Goldthorpe, 2003: 238

Table 4.5.1. Birth cohorts under comparison

Birth cohort	Time period for which the social position of the cohort was recorded	Time period for which the social position of the parents of the cohort was recorded
1930–39	1960–69	1942–55
1940–49	1970–79	1952–65
1950–59	1980–89	1962–75
1960–74	1990–2004	1972–89

Table 4.5.2. Mobility rate of different birth cohorts, %

	Birth cohort			
	1930–39	**1940–49**	**1950–59**	**1960–74**
Men				
Total mobility	74	67	53	51
Horizontal	16	12	8	14
Upward	42	43	28	23
Downward	16	12	18	15
Women				
Total mobility	79	83	79	76
Horizontal	16	16	25	24
Upward	57	60	42	33
Downward	6	7	12	19

Source: author's calculations based on Estonian Social Survey 2004 and 2005

increasingly based on the individual's own achievements, primarily the acquired qualification.

The effect of family background on the individual's social position should also be mediated by education. The growing equality of educational opportunities would, in turn, reduce the influence of family background on an individual's social position. Research has demonstrated, however, that social mobility varies greatly from country to country and the effect of the expansion of education on increasing the equality of educational opportunities is not as unambiguous as once thought (see Breen, Jonsson 2007).

Social inequality is caused by two processes: firstly, certain benefits (e.g. income) and social positions are made dependent on each other and, secondly, people become settled in those positions (Grusky 2001). The latter process is studied in the case of intergenerational mobility and researchers analyse whether and how people's social background affects their social position.

Rate of social mobility

In Estonia, intergenerational mobility and the transmission of inequality from parents to children has been studied relatively little since there was thus far a lack of data that would have made it possible to compare different cohorts[15]. The following analysis will be based on the comparison of different birth cohorts[16]. The position of the cohorts at 30 years of age and their parents' position at the time the respondents were teenagers (aged between 12–16) have been used as the basis for comparing the social status of different generations

Table 4.5.1 also lists the time periods involved in the comparison. The oldest cohort in the comparison reached their 30s during the 1960s, while the 1970s and 1980s, respectively, have been used as the comparison period for the following cohorts. In the case of the youngest cohort, the period under observation is the time of transition to the market economy and economic stabilisation.

The data provided in Table 4.5.2 indicates the rate of mobility and the direction of mobility in the case of different cohorts. In the case of men, a noticeable decrease in mobility occurred primarily among the two younger cohorts. This decrease in mobility is especially severe with regard to upward social mobility (mobility in which case the son has moved upward in the social hierarchy compared to his father). Although mobility as a whole has not dwindled among women, its nature has changed: there has been a decline in upward mobility and a correspondingly large increase in downward mobility (the type of mobility where the daughter moves downward in the social hierarchy compared to her mother).

Again, both the decline in upward mobility and the increase in downward mobility have been especially noticeable in the case of the two younger cohorts, i.e. during the 1980s and 1990s.

Table 4.5.2 reflects the overall range of social mobility, which can be used to ascertain the level of structural mobility[17], i.e. structural changes. The range of mobility is wider during periods of large-scale structural changes. Thus, it is difficult to determine on the basis of the available indicators how much the opportunities of people with varying social backgrounds differ. Due to this, it is common for analyses to separately identify a society's relative

[15] Two cohorts of secondary school graduates have been analysed and compared earlier: people who completed secondary education in 1966 and 1983 (see e.g. Roosmaa, Täht 2001; Helemäe et al. 2000; Titma et al. 2003). It should be taken into account, however, that these cohorts made up only a part of the corresponding birth cohorts and therefore cannot be used to make generalisations about the entire society.

[16] The data used was collected for the Estonian Social Survey by Statistics Estonia.

[17] In the case of structural mobility, people's social positions change due to the fact that certain social strata cease to exist and new strata appear as a result of transformations occurring in society. It might also happen that some existing strata grow at an increased rate while others diminish in proportion. After an economic transition, structural mobility can also be a result of political factors (the elimination of the ownership class after World War II). It is therefore difficult for children to follow in their parents' footsteps even by "objective" standards.

mobility which is supposed to reflect the differences in social mobility opportunities[18].

Figure 4.5.2 presents a comparison of the mobility opportunities of the different cohorts (i.e. the extent to which the position of 30-year-olds depends on the position of their parents). The oldest cohort containing people who were 30 years old during the 1960s, having been born in 1930–1939, is used as a basis for comparison.

Values over 1 indicate an increase in the effect of people's social background, while values below 1 indicate its decline. The figure indicates that among men, intergenerational social mobility decreased during the 1990s, while the effect of the family background on a person's social position increased considerably. The changes were less prominent in the case of women. At the same time, there was no decrease in the influence of family background on women's social position in the 1990s, compared to the 70s and 80s.

The decline of intergenerational social mobility during the 1990s has also been outlined in the findings of studies conducted in other former socialist countries (e.g. Hungary, Russia, etc.) (see Gerber, Hout 2004; Bukodi, Goldthorpe 2009).

The role of education

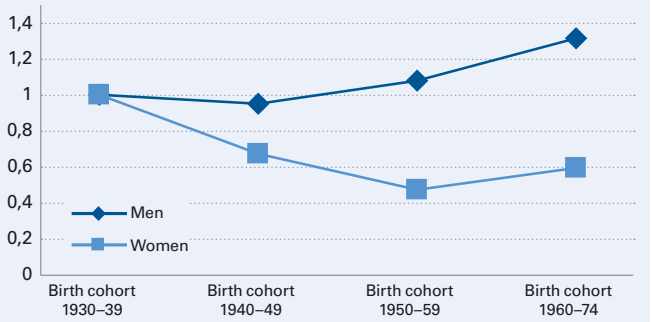
In studying the transition of inequality between generations, it is also considered important to examine the mechanisms that favour or hinder the transition. One such mechanism is the effect of education. In the case of Estonia, analyses do not provide any indication of the expansion of (higher) education in the 1990s having brought about an equalisation of educational opportunities.

Figure 4.5.3 confirms that the effect of social background on the level of education has grown considerably, and that the increase is once again especially apparent among men. A small rise among women has also been apparent, though. It is likely that the gender-specific changes over time have been caused primarily by gender segregation in the education system, i.e. the fact that young men make up the majority of people engaged in vocational education, while young women account for the majority of students in upper secondary schools.

The lines in Figures 4.5.2 and 4.5.3 are relatively similar. Consequently, it was the increase in the effect of social background on the acquired level of education that caused the decline in intergenerational social mobility.

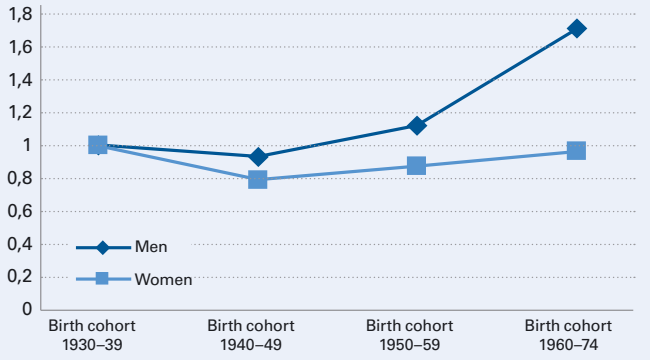
The range of social mobility is not the only factor that points to the availability of equal opportunities in society or the lack thereof. In addition to opportunities for social mobility, it is also important to study the distribution of other factors that most affect people's lives (e.g. income, cultural resources) and the resulting inequality. A comparison of different countries has proven that very diverse strategies are used for equalising educational opportunities. The USA, for example, has focused on improving access to education in the hopes of bringing about the equalisation of opportunities. The Nordic countries, on the other hand, have proceeded from a very different strategy and have increased the equality of initial conditions and improved the learning opportunities of disadvantaged children (Hout, Dohan 1996).

Figure 4.5.2. Change in the strength of association between social origin and social destination: the 1970s, 1980s and 1990s (1960–1974 birth cohort) compared to the 1960s (1930–1939 birth cohort)[19]



Source: author's calculations based on Estonian Social Survey 2004 and 2005

Figure 4.5.3. Changes in the strength of association between social origin and an individual's level of education: the 1990s[20] (1960–74 birth cohort) compared to the 1960s (1930–1939 birth cohort)



Source: author's calculations based on Estonian Social Survey 2004 and 2005

In Nordic welfare societies, the universal pre-school preparatory system with its steady quality has been considered one of the main reasons for the lesser influence of social background and greater intergenerational social mobility, since this system has contributed to the equalisation of initial conditions for children with various social backgrounds (Esping-Andersen 2006).

Estonia's strategy seems to be similar to the US model. Unfortunately, the expansion of education by itself has not contributed to the greater availability of opportunities for acquiring education as well as social mobility for youth from different backgrounds. Instead, the field of education has seen a noticeable increase in tendencies pointing towards the reproduction of social differences.

Several researchers have also pointed out that educational stratification occurs in Estonia at an increasingly early age due to the competition that has developed between kindergartens

[18] This is done through log-linear analysis based on odds ratios (see, for example, Marshall et al. 1997).

[19] The 1960s = 1, values > 1 represent the increase of the influence of social background; values < 1 represent the decrease of the influence of social background.

[20] The 1960s = 1, values > 1 represent the increase of the influence of social background; values < 1 represent the decrease of the influence of social background.

as well as the growing rift between children who have attended "elite" and ordinary kindergartens and have grown up in privileged and non-privileged homes (Loogma 1998).

In order to increase the openness of Estonian society we should therefore try to equalise access to education for youth from different social backgrounds at the earliest possible age.

References

1. Bell, D. (1972). On Meritocracy and Equality. The Public Interest 29, pp. 29–68
2. Breen, J. (ed.) (2004). Social Mobility in Europe. Oxford: Oxford University Press
3. Breen, R., Jonsson, J. O. (2007). Explaining change in social fluidity: educational equalization and educational expansion in twentieth-century Sweden, American Journal of Sociology 112, pp. 1775–1810
4. Bukodi, E. and Goldthorpe, J. (2008). Market versus meritocracy: Hungary as a critical case. Seminar presentation at Nuffield College, University of Oxford
5. Esping-Andersen, G. (2006). Social Inheritance and Equal Opportunity Policies. In: Lauder, H., Brown, P., Dillabough, J.-A., Halsey, A. H. (eds.) Education, Globalization & Social Change. Oxford University Press, pp. 398–407
6. Featherman, D. L., Hauser, R. M. (1978). Opportunity and Change. New York: Academic Press
7. Gerber, T. P., Hout, M. (2004). Tightening up: declining class mobility during Russia's Market Transition. American Sociological Review 69, pp. 677–703
8. Grusky, D. B. (2001). The Past, Present and Future of Social Inequality.
9. D.B.Grusky (ed,) Social Stratification: Class, Race and Gender in Sociological Perspective. Boulder; Colo: Westview, 1-53
10. Helemäe, J., Saar, E., Vöörmann, R. (2000) Kas haridusse tasus investeerida. Tallinn: Estonian Academy Publishers
11. Hout, M., Dohan D. P. (1996). Two paths to educational opportunity: class and educational selection in Sweden and the United States. In Erikson R., Jonsson J. O. (eds.) Can Education Be Equalized? Boulder, Colorado: Westview, pp. 207–232
12. Loogma, K. (1998). Kas haridussüsteem integreerib või murendab ühiskonda. 1998 Estonian Human Development Report. Tallinn: United Nations Development Programme, pp. 17–24
13. Marshall, G., Swift, A., Roberts, S. (1997). Against the Odds? Social Class and Social Justice in Industrial Societies? Oxford: Clarendon Press
14. Roosma, K., Täht, K. (2001). Sõjajärgse põlvkonna sotsiaalne mobiilsus. Titma, M. (ed.), Sõjajärgse põlvkonna elutee ja seda kujundanud faktorid. Tartu: Tartu University Press
15. Titma, M., Tuma, N. B., Roosma, K. (2003). Education as a Factor in Intergenerational Mobility in Soviet Society, European Sociological Review 19, pp. 281–297
16. Treiman, D.J. (1970) Industrialization and Social Stratification. In Laumann, E.O. (ed.) Social Stratification: Research and Theory for the 1970s. Indianapolis: Bobbs Merrill

4.6. Intragenerational social mobility

Intragenerational mobility characterises the life course of an individual in relation to the existing social hierarchy: the level reached in the hierarchy by a certain age under certain conditions.

While in studies of intergenerational mobility the parents' family is approached as the main benchmark against which an individual's advancement is evaluated and as the central factor that either mitigates or intensifies social influences, the main objective of studies of intragenerational mobility is the analysis of social influences themselves. The acceleration of global processes as well as the globalisation of social studies increases the researchers' awareness regarding the importance of the distinctive features of the local context.

Studying the role of institutional order in the reproduction of the existing social hierarchy is one of the main goals of the analysis of intragenerational social mobility. Due to the rapid speed of institutional changes taking place in Estonia as a transition society, researchers of intragenerational social mobility view the country as a natural experiment environment.

The important question is which social processes have brought about changes in the existing social hierarchy and to what degree these changes have been caused by the implementation of market economy institutions, and/or the state withdrawing from the regulation and coordination of many processes, and/or the marketisation of the education system.

Estonia's distinctive features

Among the post-socialist countries of Eastern and Central Europe, Estonia stands out due to the fact that it did not prioritise the mitigation of social risks related to fast and fundamental changes. Furthermore, Estonian society tends to be prejudiced towards anything that might be related to our past under the socialist regime. This includes professional experience.

Thus, there is legitimate cause to presume that during the past twenty years the principles governing the formation of the social hierarchy and the prerequisites necessary for moving between its levels would have changed fundamentally. Similarly, it is likely for the "incumbents" of the different positions in the hierarchy to be altered. In other words, the social changes were expected to result in the increase of vertical intragenerational mobility (i.e. mobility between different levels of the hierarchy).

However, research shows that even during the period of the greatest changes in the labour market (1992–1995) there was rather little upward mobility. Instead, the period was characterised primarily by "forced social mobility" (which, in addition to downward mobility, also includes becoming unemployed or inactive, for example by abandoning the job search after a prolonged series of failures. The category also includes job changes that take place on the initiative of the employer, even if the mobility in question is horizontal in nature.).

The most likely explanation for the prevalence of forced mobility is the risk involved in changing jobs and the high cost of potential failure, which derive from the actual flexibility of the Estonian labour market (rather than the presumable level of flexibility based on the Employment Contracts Act) – the employer's real right to decide the fate of the employees, the weak social protection available for the unemployed, the scarcity of support for finding new employment, etc.

The developments that occur in the labour market are considered an important factor that causes changes in social hierarchy within the paradigm of social stratification. In Estonia, the post-industrialisation process did not bring about a significant rise in the quality of labour market positions, i.e. the skill requirements for employees did not increase significantly. At times, even opposite trends existed (see the previous Estonian Human Development Reports).

This situation is also reflected in professional hierarchy. The data presented in Figure 4.6.1 show that changes occurred in positions with lower educational requirements. For example, between 1990 and 2004 the percentage of workers decreased, while the share of lower-level white collars (clerks and service workers) and elementary occupations increased. This is a result of the structural changes in the Estonian economy, above all the decline in the relative importance of industry. Yet there was practically no change in the percentage of jobs with the highest qualification requirements during the same period. The general drop in employment – from three quarters of the working-age population in 1990 to two thirds in 2008 – and the expansion of higher education indicate that the competition for those positions is becoming more intense as of late. The data of the Estonian Social Survey (ESS) is used to study the extent to which increasing competition is accompanied by the replacement of people in the professional hierarchy.

Extent of intragenerational social mobility

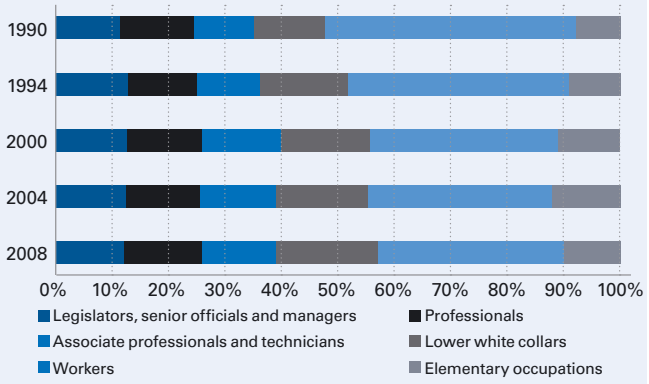
The data available for the beginning of this century shows that when we look at individual vocational categories, the replacement of people was not very extensive (see Table 4.6.1). Nearly 80–90% of the people who belonged to a certain occupational group in 2000 also belonged to the same occupational group in 2004. The exchange of people was somewhat more frequent in the case of the occupational categories of lower-level white collar professionals and elementary occupations. Since it is these two categories that had increased in relative importance compared to 1990, they can evidently be considered the most dynamic of the occupational categories. In the case of elementary occupations, the replacement of people can, in principle, be seen as a positive phenomenon, since there are not many people who would like to do those types of jobs for their entire lives. However, the data shows that it is the occupational categories of lower-level white collar professionals and elementary occupations that face the greatest risk of unemployment. In order to assess the range of social mobility at the beginning of this century, the data concerning the period is compared to the years 1990–1994 – the time of the most intensive changes during recent Estonian history. One might expect that compared to the period 1990–1994 when employment fell from 75% to 65% in four years, a time of economic growth would be characterised by a greater level of upward mobility.

Despite this, it is evident (see Figure 4.6.2) that during the period of restructuring of the labour market (1990–1994) there was not only somewhat more downward mobility, but also upward mobility, when compared to the first years of this century (2000–2004). This is also true if we observe mobility among men and women separately. However, even the higher rate of mobility in question was quite modest in general terms, and does not indicate a fundamental replacement of incumbents in the occupational hierarchy. The conclusion made regarding the end of the previous century still applied at the beginning of the new one – people either are not willing to take the risk of significantly changing their professional status or are incapable of doing so. This is also confirmed by the data on the number of job changes during the period. If we observe people in their prime working age (between 20 and 49 years old) who were employed at the beginning of the period, approximately half of them changed jobs in 1990–1994, while in 2000–2004 just one third of employed people in that age group found new jobs. At the beginning of the 1990s, the percentage of people who changed jobs was relatively similar across occupational group, varying between 43% among associate professionals to 52% among managers: during the time of structural changes, most people's labour market position was fairly insecure. At the beginning of this century (2000–2004), only a quarter of professionals, the occupational category with the most secure labour market position, changed jobs. The corresponding share among lower-level white collars, whose position is more insecure on the other hand, was 40%.

The differing patterns of mobility during the two periods in question also characterise a more general change in the stratification order on a wider scale.

Namely, Estonia's social structure had crystallised by the beginning of the century in a way that points towards Estonian society becoming a more closed society. Firstly,

Figure 4.6.1. Professional composition of Estonia's working-age population 1990–2008, %



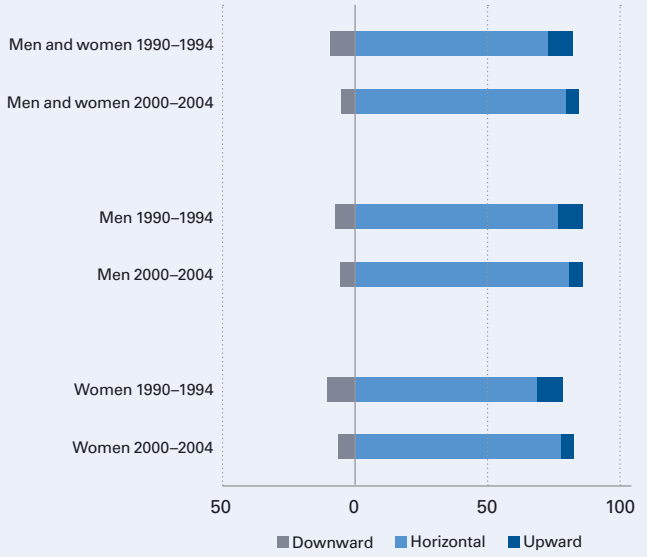
Source: Statistics Estonia database

Table 4.6.1. Intragenerational mobility among people aged 20–59 in 2000–2004, %

Occupational group in 2000	Occupational position in 2004							Total
	Managers	Professionals	Associate professionals	Lower-level white collars	Workers	Elementary occupations	Unemployed	
Managers	84	2	3	2	3	1	5	100
Professionals	3	90	1	1	1	1	3	100
Associate professionals	4	2	80	4	2	1	7	100
Lower-level white collars	2	1	4	69	7	3	14	100
Workers	1	0	1	2	82	3	11	100
Elementary occupations	1	0	2	1	9	71	16	100

Source: author's calculations based on Estonian Social Survey 2004

Figure 4.6.2. Intragenerational mobility of people aged 20–49 in Estonia



Source: author's calculations based on Estonian Social Survey 2004

Table 4.6.2. The intragenerational mobility of people aged 20–49 by occupational groups during the periods 1990–1994 and 2000–2004

Occupational group in 2000	Occupational position at the end of the period compared to the occupational group at the beginning of the period									
	1990–1994					2000–2004				
	Downward	Same	Upward	Un-employed	Total	Downward	Same	Upward	Un-employed	Total
Managers	20	75	–	5	100	11	84	–	5	100
Professionals	10	79	5	6	100	3	89	4	4	100
Associate professionals	15	67	8	10	100	6	80	6	8	100
Lower-level white collars	10	69	9	12	100	10	69	7	14	100
Workers	4	76	9	10	100	3	82	4	11	100
Elementary occupations	–	56	29	15	100	–	71	13	16	100

Source: author's calculations based on Estonian Social Survey 2004

the percentage of upwardly mobile people has decreased instead of increasing. Secondly, the share of higher positions in the professional structure has not increased (see Figure 4.6.1), while in the case of intergenerational mobility, stability increased most in the case of higher positions (see Table 4.6.2) which did prove to be the most persistent.

Moreover, upward mobility simultaneously declined in the case of the occupational categories of lower-level white collars and workers (see Table 4.6.2). This increase in stability among the higher levels of professional hierarchy is an indication of the higher end of the hierarchy becoming more closed.

Mobility occurred between categories that are located close to each other in the hierarchy, especially between the declining occupational category of workers and the growing occupational category of lower-level white collars.

At the same time, no significant mobility or exchange of positions took place between, for example, the category of workers and those of managers and professionals. This applies both to men and women – only 1–2% of all people in the labour market in 1990 managed to rise from the position of worker to that of manager or professional. Very little mobility could be seen in the opposite direction also – from the position of a manager or professional to that of a worker. In Estonia, the employment situation for men and women differs quite a lot in terms of the occupations involved. Furthermore, their labour market behaviour tends to differ, which makes the general labour market situation an outcome of varied processes. Among men, the occupational structure tends to be of a closed nature, seeing as virtually 60% of all men were workers when the changes began and also remained workers in 1994 when the results of the structural changes in economy became evident. As opposed to men, women's employment structure is less clearly focused on one occupational category. However, it is difficult to find evidence of intragenerational mobility in the conventional meaning of the term in the case of women. Women are more likely to leave the employment than experience downward or upward mobility. Leaving the employment is not at all an unambiguous phenomenon, as it can be an involuntary choice made during more difficult times and by members of more vulnerable occupational categories with the aim of escaping the uncertainty of the labour market. At the same time, a better economic situation and an overall perception of increasing social and economic security in the society contributes to rising birth rates. It is likely that similar indicators (during both periods in question a little more than a tenth of women aged between 20 and 49 who worked at the beginning of the period left the employment) can be caused by different reasons.

Intragenerational mobility and birth cohorts

One of the principal premises for studies of people's life courses and intragenerational mobility is the notion, which has been confirmed on earlier occasions, that occupational mobility is age-sensitive, i.e. people's level of mobility is at its highest during their early lives when they are looking for a suitable niche in the labour market. Due to the fact that the higher level of mobility is a consequence of different processes that coincide during an individual's early life, young people's intensive movement in the labour market may be only partly explained by their deliberate choice. Firstly, in many societies, the period of transition from the education system to the labour market is risky and involves a lot of uncertainty, finding a job that corresponds to an individual's education takes time, and job changes occur more frequently. At the same time, there are more opportunities for changing one's job during youth (e.g. due to the lack of a family to support), which prevents people from accepting any job that seems to fit them according to the formal criteria. Instead, they are encouraged to look for a job they actually like through trial and error. With regard to older age, if vertical mobility occurs during this stage of a person's life, it is usually downward mobility. Thus, as in the case of intergenerational mobility, it is important to analyse birth cohorts in order to, firstly, compare the mobility of various birth

cohorts during the same time period, and, secondly, compare the birth cohorts in different time periods.

The data in Table 4.6.3 has been presented in a way that enables such analyses: age groups are represented by different birth cohorts depending on the period. The analysis of the mobility of birth cohorts shows that instead of age or birth cohort, decreasing mobility is mainly caused by factors related to a given time period – the situation in the labour market, the level of institutional protection provided to employees, etc. Thus, the risk of downward mobility was practically equally divided between age groups even during the period of the greatest changes, at which point the overall level of risk was slightly higher than during the period of economic growth.

In the case of upward mobility, our data reconfirm both the conventional notions and the findings of previous research regarding the fact that great social rearrangements have a favourable influence on opportunities for young people and also that youth is the period of life when people are professionally ambitious – the examined cohorts of young people have more will and opportunities for striving towards advancement on the career ladder. Upward mobility was at its highest among young people during both periods, although the rate of upward mobility was somewhat higher during the period at the end of the last century. The earlier period also offered more favourable opportunities for people aged 30–39. The fact that young people's opportunities for upward mobility were better at the end of last century (i.e., during the structural changes in the labour market) is confirmed by the data characterising the achievements of men and women (see Table 4.6.4).

At the same time, a comparison of the periods in question reveals a more problematic aspect related to mobility: downward mobility decreased (although just slightly) only among older age groups, which resulted in a situation where the ratio of risks (downward mobility) and opportunities (upward mobility) currently seems to be less advantageous for young men than it was at the beginning of the 1990s. In other cases no significant changes in the distribution of risks and opportunities between age groups have occurred, despite the considerable overall differences between the periods under observation.

In the case of women, on the other hand, it appears that the labour situation for the 40–49 age group is much more secure nowadays than it was during the period of fundamental structural changes: their downward mobility has decreased significantly and their risk of long-term absence from work has also fallen somewhat. In other words, while the labour market was "adapted" at the expense of more vulnerable participants (including women) during critical times, the situation changed as a result of economic growth. How the situation of women in the labour market will be affected by the new economic crisis given that the employers' domination over the employees now has much more support from legislation is another matter. It is again important to stress a distinctive feature related to women's mobility, namely women switching between employment and non-employment. At the beginning of this century, the youngest women left the workforce *en masse* (22%) due to choices made voluntarily (in the context of economic growth). Understanding the reasons why women leave employment and providing support for women who want to find a suitable path back into the labour market (in the sense of finding a job that fits their professional qualifications) has become a very topical issue, however.

Table 4.6.3. Intragenerational mobility: birth cohorts by age and analysed period (%)

		1990–1994			2000–2004		
		Age group			Age group		
Mobility	Birth cohort	20–29	30–39	40–49	20–29	30–39	40–49
Downward	1970–1979				8		
	1960–1969	8				5	
	1950–1959		8				5
	1940–1949			10			
Position unchanged	1970–1979				71		
	1960–1969	69				82	
	1950–1959		76				84
	1940–1949			76			
Upward	1970–1979				8		
	1960–1969	11				4	
	1950–1959		9				3
	1940–1949			4			
Out of employment	1970–1979				13		
	1960–1969	12				9	
	1950–1959		7				8
	1940–1949			10			
Total	1970–1979				100		
	1960–1969	100				100	
	1950–1959		100				100
	1940–1949			100			

Source: author's calculations based on the 2004 Estonian Social Survey

Table 4.6.4. Intragenerational mobility among men and women: birth cohorts by age and analysed period (%)

		Men						Women					
		1990–1994			2000–2004			1990–1994			2000–2004		
		Age group			Age group			Age group			Age group		
Mobility	Birth cohort	20–29	30–39	40–49	20–29	30–39	40–49	20–29	30–39	40–49	20–29	30–39	40–49
Downward	1970–1979				7						8		
	1960–1969	7				4		9				6	
	1950–1959		6				4		10				5
	1940–1949			8						12			
Position unchanged	1970–1979				78						61		
	1960–1969	74				83		64				81	
	1950–1959		80				83		73				85
	1940–1949			79						73			
Upward	1970–1979				9						9		
	1960–1969	12				5		10				4	
	1950–1959		8				2		9				4
	1940–1949			3						5			
Out of employment	1970–1979				6						22		
	1960–1969	7				8		17				9	
	1950–1959		6				11		8				6
	1940–1949			10						10			
Total	1970–1979				100						100		
	1960–1969	100				100		100				100	
	1950–1959		100				100		100				100
	1940–1949			100						100			

Source: author's calculations based on the 2004 Estonian Social Survey

Conclusion

The research data allows us to conclude that the Estonian social hierarchy is rather encapsulated.

It is usually presumed that people take more risks and look for better jobs when the economy is doing well and yet the rise in upward mobility at the beginning of this century was modest, despite the favourable nature of the economic climate towards such developments. The rate of upward mobility even proved to be lower throughout this period than during the economic downswing at the beginning of the 1990s. This trend would not have to be bad in itself if the wealth inequality generated by social hierarchy were smaller. Unfortunately, we have one of the highest levels of inequality among European countries (see also this report's section on economic stratification).

Estonia's low intragenerational mobility confirms the closed nature of the occupational hierarchy: upward mobility has fallen primarily among lower-level white collars and workers, while downward mobility has decreased among higher positions. All of this is taking place in a situation where the demand for high occupational positions has not increased in the labour market.

On the one hand, this is an evidence of tough competition where the only hope for success is completing higher education as early as possible. On the other hand, however, awareness of the limited opportunities for mobility has a discouraging effect on young people with a modest social background, making some of them avoid competition. Unfortunately, the above-mentioned analysis shows that this would be a rational choice – after all, upward mobility did decrease among the youngest age group of men without there being any significant decrease in downward mobility. It appears that the most beneficial result of economic growth in the market-oriented economy was not the better chance of success (e.g. in the form of upward mobility), but rather the smaller risk of failure (e.g. in the case of older women) and especially the smaller risk of long-term exclusion from work. At the same time, the events of the past year have shown that this gain proved to be very temporary.

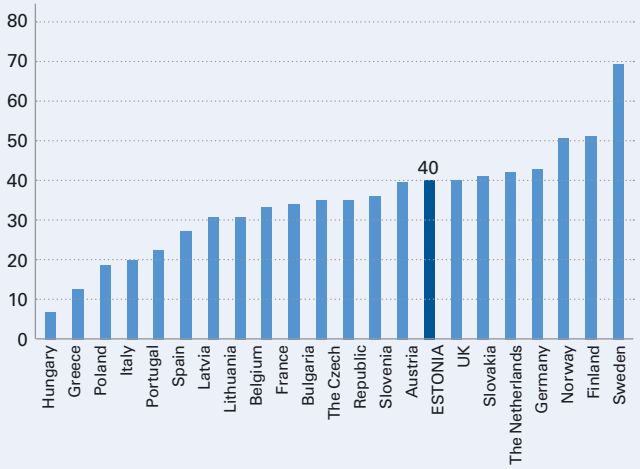
4.7. Employees' participation in training

One of the most important factors related to social mobility is education, including the opportunities people have to educate or retrain themselves over the course of their careers. Due to the increase in unemployment, training has been acknowledged as a very valuable labour market measure. Training opportunities aimed at the unemployed gain special importance during an economic crisis. Although the number of unemployed individuals who undergo training has increased several times since 2008 (in 2008, more than 12,000 unemployed received training, while nearly 33,000 people had taken advantage of similar opportunities by October 2009), the share of all unemployed people who participated in training remained at 4–5% on a monthly basis (Estonian Unemployment Insurance Fund database). At the same time, the economic crisis is having a profound effect on employees' training opportunities. According to the Association of Estonian Training Companies, the turnover for training companies fell by approximately 40% during the first quarter of 2009 (Salu 2009). The decrease is primarily related to traditional training, i.e. public training with a standard programme, which is aimed at everyone, while previously there was a drop in the volume of internal training aimed at specific companies and organisations.

The first cuts made by companies and state institutions as a result of the economic crisis involved costs related to training: compared to the earlier period, training spending fell by up to 50% (Kallas 2009). At the same time, the share of state institutions among clients of training companies has increased (Salu 2009).

The following analysis of participation in training is based on the Adult Education Survey (AES) conducted by Eurostat in a number of European countries in 2007 and 2008. Although the years under observation precede the economic crisis, the trends revealed by the analysis also allow us to draw conclusions regarding the present situation.

Figure 4.7.1. Participation in non-formal learning in European countries, 2007–2008, %



Note: The data reflects participation in training during the year that preceded the survey.

Source: Adult Education Survey, Eurostat

Rate of participation in training in Estonia and other EU countries

According to the Adult Education Survey (AES) (see Figure 4.7.1), the percentage of people engaged in non-formal learning (mainly vocational training) in 2007–2008 varied from country to country. The first place was held by the Nordic countries – Finland, Norway and especially Sweden, where 50–70% of the adult population was engaged in non-formal learning.

In most European countries, including Estonia, 30–40% of the adult population participates in non-formal learning. Taking into account the fact that the rate of participation was between 7% and 30% in Southern Europe, Hungary, Poland, as well as Latvia and Lithuania, Estonia belongs among countries with average indicators in this regard.

However, the total percentage of people engaged in non-formal education does not provide information on

how equally/unequally different population groups participate in training. It is generally known that on average occupational categories located higher in the social hierarchy participate more frequently in training and the same is true for younger people (see Brunello, Medio 2001; Bassanini, Brunello 2007).

Figure 4.7.2 contains data on participation in non-formal learning by the people's labour market situation and Figure 4.7.3 provides data by occupational categories. These figures should be analysed jointly.

In Bulgaria, Slovakia and the Czech Republic, the rate of participation in non-formal learning varies very little from elementary occupations to managers and professionals, while the non-working groups – non-active people and the unemployed – are severely underrepresented. Thus, people's access to training is determined primarily by their labour market situation.

Poland, Lithuania and Latvia belong among the countries where inequality in training participation is large both in terms of occupational categories and labour market status. Although the overall participation rate is not very high in Southern European countries and participation levels are quite different for elementary occupations and managers/professionals, the societies in question have managed to avoid a situation where the unemployed and the employed are in an unequal position with regard to taking part in training.

Germany, France and Belgium have average indicators both in terms of the relative difference between groups whose position in the labour market is different as well as different occupational categories. In the Nordic countries, employed people also have a significantly better chance of participating in training than unemployed and non-active members of the society, although in Sweden the rate of participation for the unemployed surpasses the corresponding rate for employed respondents in most other European countries, including Estonia.

Among other countries, the Nordic states stand out due to their lower level of inequality in non-formal learning participation, both by occupational categories as well as groups characterising people's labour market position. In Estonia, however, the differences between the participation of employed respondents and the unemployed and non-active people is large – approximately 50% of working people participate in non-formal learning, while the corresponding figure is 16% among the unemployed and only 11% among non-active respondents. Moreover, nearly half of the unemployed respondents who did not participate in training mentioned the fact that they were offered no training at all or were offered training in a field that they were not interested in as an important reason for their non-participation. The differences between occupational categories are also relatively large.

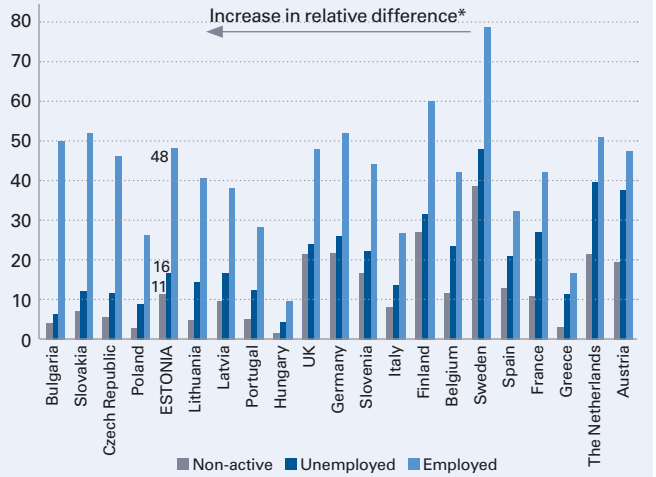
Estonia also stands out as a country that has one of Europe's highest rates of participation in training by managers and professionals and is outdone in this area only by Sweden and Finland. However, the same cannot be said for the participation of elementary occupations, which is, instead, at an average level compared to the rest of Europe.

Expenditure on training

From the aspect of social differentiation, who pays for the adult learning and education in question is also of importance. Figure 4.7.4 indicates that formal learning costs more than non-formal learning due to its larger volume and longer duration.

Expenditure on education was highest in Austria, Greece, Portugal and Germany. Although formal education was rather expensive in Slovenia, learners paid less for non-formal education there than in the aforementioned countries. Compared to other EU countries, expenses related to the participation of adults in the formal education system were average in Estonia (565 euros or approximately 8840 Estonian kroons), though differences in the standard of living have to be taken into account when assessing different countries. Spending on formal education was lower in countries with a higher standard of living, such as Sweden, the

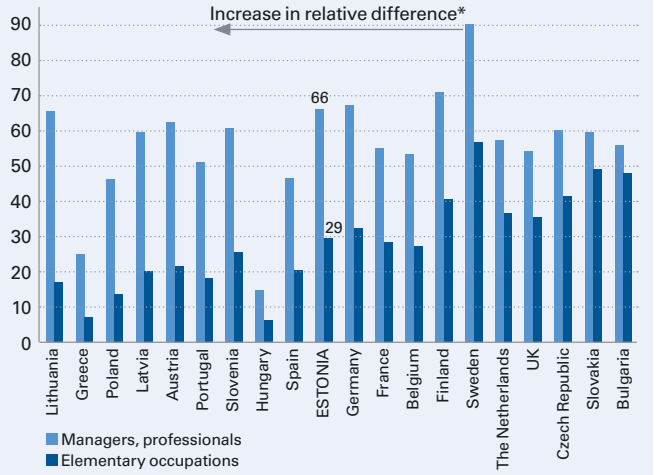
Figure 4.7.2. Participation in non-formal learning among groups with different labour market positions, percentage of participants



**The increase in relative difference indicates the degree to which the participation of employed people in non-formal learning exceeds the participation of non-active and unemployed individuals.*

Source: Adult Education Survey, Eurostat

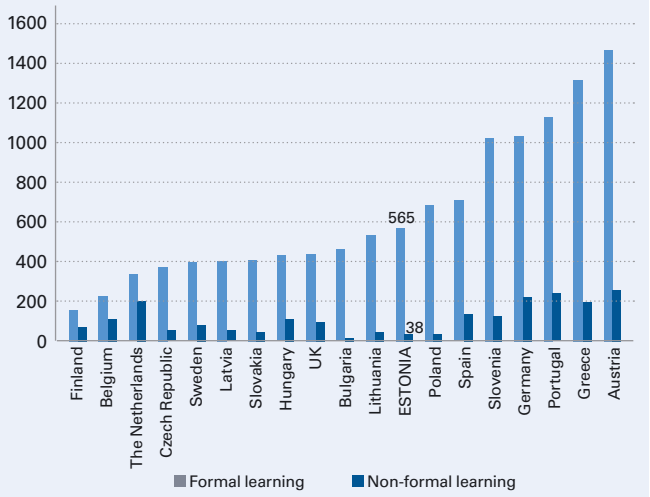
Figure 4.7.3. Differences between occupational categories with regard to participation in non-formal learning, %



**The increase in relative difference indicates the degree to which the participation of managers and professionals in non-formal learning exceeds the participation of individuals with elementary occupations.*

Source: Adult Education Survey, Eurostat

Figure 4.7.4. Average sum annually spent by learners on education and training (EUR)



Source: Adult Education Survey, Eurostat

Table 4.7.1. Expenditure on non-formal learning by learners in Estonia and some other EU countries, occupation categories compared with the total average (=1)

	Managers, professionals	Office clerks, service workers	Skilled workers	Elementary occupations
EU 27	1.24	0.79	0.83	0.49
Czech Republic	1.54	0.94	0.44	0.18
Germany	1.32	0.72	0.66	0.28
Sweden	1.28	0.73	0.41	0.83
Finland	1.28	0.36	0.90	0.61
The Netherlands	1.18	0.83	0.08	0.89
Poland	1.16	1.03	0.49	0.59
Spain	1.12	0.96	0.79	0.94
Slovakia	1.12	1.37	0.63	0.44
Portugal	1.09	1.22	0.75	0.43
Latvia	1.06	1.26	0.49	0.74
Lithuania	1.06	0.58	0.98	0.77
Hungary	1.05	1.29	0.51	0.91
UK	1.01	0.56	2.69	0.73
Slovenia	0.95	0.99	1.63	0.68
ESTONIA	0.74	1.50	1.47	1.18

Source: Adult Education Survey, Eurostat; authors' calculations

Netherlands, Belgium and Finland, while non-formal learning cost more in the abovementioned countries. For example, adults annually spend an average of 38 euros (595 kroons) on training in Estonia; the corresponding figure in Sweden, the Netherlands, Belgium and Finland is 120 euros (1880 kroons). In Western Europe, adults are more frequently able to pay for training themselves due to the higher standard of living, while in the new EU countries people mainly make use of training opportunities provided by their employer.

Comparing expenditure on non-formal learning by occupational categories, the data collected for the Adult Education Survey indicate that in EU countries, managers and professionals spent more than average on participating in training, while people engaged in elementary occupations tended to spend less than average (see Table 4.7.1). The main reason for this is the difference in wage levels.

Estonia, however, differed from other European countries in that our managers and professionals tended to spend less than average on training, while the other occupational categories spent more than average. This means that there was an inverse correlation between the ability to pay for training and the actual amount of money spent on training. Further analysis also showed that Estonian employers prefer to cover training expenses that are incurred by occupational categories located higher in the social hierarchy.

Factors that hinder training

Previous studies have offered several explanations for the differences between countries with regard to people's participation in non-formal learning. According to the bounded agency model proposed by Rubenson and Desjardins (2009), the ability and potential of individuals to participate in learning as adults is affected by structural and institutional conditions as well as targeted policy measures. Furthermore, the role of adult education in a society has been said to be largely dependent on its sociopolitical structure (Carnoy 1990).

It is presumed that the different types of welfare countries (e.g. liberal, conservative and social democratic) have a different influence on factors that hinder participation in adult education, particularly institutional and situational (work- and family-related) barriers (Rubenson, Desjardins 2009).

The type of welfare state affects the social structure, the system of adult education and individual prospects, as well as the awareness of individuals regarding their opportunities. In addition to certain resources (knowledge, skills, income), the decision to start or continue learning requires people to be able to use the resources available to them in order to achieve their goals. Thus, limitations caused by dispositions related to learning, which are, in turn, affected by structural and institutional barriers, may deny an individual the freedom to participate in adult education.

While the political measures characteristic of different types of welfare state have a direct effect on the structural context of people's activities (workplace, home, civil society), they also indirectly influence people's rational choices and assessment of the options available to them. Targeted policies may, however, encourage people to decide to start learning.

In order to guarantee the efficiency of the training system, it is important to know how many people do not wish to participate in training and their reasons for not doing so. According to the data presented in Figure 4.7.5, Estonia's percentage of people who wished to participate in training was near the EU average, lagging significantly behind the United Kingdom and Sweden, yet outpacing most new EU countries. Of all respondents in Estonia, 28% wished to participate in training. At the same time, a relatively large share of respondents (27%) had taken part in training before but did not wish to do so in the future.

The following analysis will focus on the reasons for not participating presented by respondents who would have liked to participate in training but did not do so. In Table 4.7.2, countries have been grouped by welfare state types. New EU countries from Central and Eastern Europe are usually grouped together and treated as separate from the other Member States, although their number includes countries that have developed their policies according to different welfare state types (or, occasionally, have combined measures from several types).

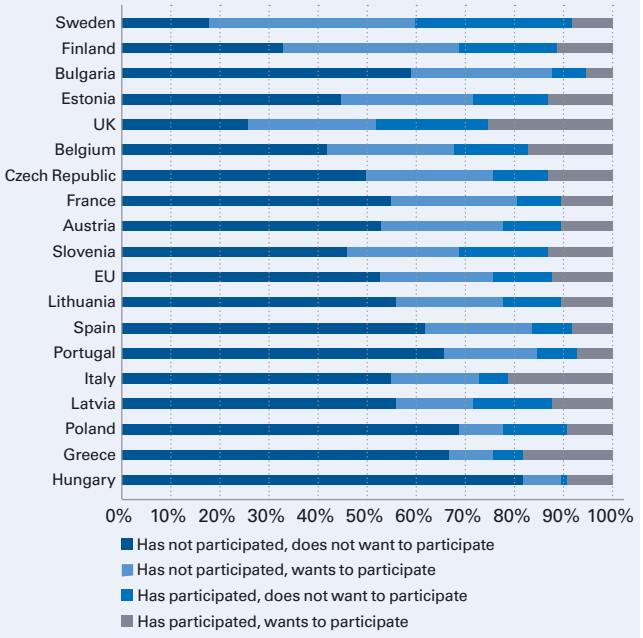
The reason for not participating cited most frequently by respondents involved situational barriers. Nearly 2/5 of

the respondents named lack of time (time spent on home life and family obligations, the incompatibility of education with the respondents' work schedules) as a factor that prevented them from participating in training. There were exceptions: for example, respondents in the Nordic countries brought up family-related lack of time somewhat less frequently than respondents in other countries.

There were no systematic differences between countries in terms of work-related reasons. While lack of support from the employer was cited frequently in Hungary, Latvia and Germany, the prominence of this answer was considerably lower in Estonia than the EU average.

Non-participation in training is also affected by institutional barriers, especially in the new EU countries where nearly half of all respondents, and more than half in Estonia, cited the high cost of training as the reason for their inability to participate. The Czech Republic was an exception to this rule and most similar to Finland in this respect, since only a fifth of their respondents who did not participate in training believed the training costs to be too high. Less frequently mentioned reasons for not participating in training included the lack of training opportunities near the respondents' home and the inability to fulfil the entrance criteria. Limitations related to individual disposition or inner readiness to start learning was experienced by an average of 15% of respondents who did not participate in training. Estonia (like Latvia and Lithuania) differed from the average EU indicators in that the respondents who did not participate in training named the high cost of training as the most important hindrance to participation.

Figure 4.7.5. Participation in non-formal learning and future desire to participate, %



Source: Adult Education Survey, Eurostat; authors' calculations

Conclusion

The analysis shows that although people experience obstacles to continuing their studies in all types of welfare states, the learning and training participation rates point to certain types of welfare states being better equipped to overcome such restrictions. The high rate of participation in training and lower level of inequality, characteristic of the Nordic countries which serve as role models for Estonia, has been explained by several factors:

- the coherence of adult education and labour market policy, which results in many different types of training opportunities being offered to the unemployed (Rubenson 2006);
- trilateral agreements and strong trade unions have contributed to the plurality of training opportunities;
- the important role of civil society, which has been supported by state (financial) assistance;

Table 4.7.2. Reasons for not participating in training %*

	EU-27	New EU countries					Nordic countries		Anglo-Saxon countries	Central European countries		Southern European countries	
		ESTONIA	Czech Republic	Hungary	Latvia	Lithuania	Finland	Sweden	UK	Germany	Austria	Italy	Spain
Institutional barriers													
Training was too expensive	31	53	20	42	51	47	22	32	34	44	35	26	13
Training opportunities not offered near home	21	13	16	32	24	20	26	22	26	25	22	17	9
Unable to fulfil the entrance criteria	16	3	8	14	11	3	12	6	21	24	7	19	8
Situational barriers													
Family-related lack of time	40	39	39	38	40	34	31	23	43	34	42	50	41
Work-related: incompatibility with work schedule	39	33	37	53	37	48	44	32	44	37	40	44	33
Work-related: lack of support from the employer	18	9	23	40	30	16	24	19	23	33	16	15	5
Dispositional barriers													
Health or age-related issues**	15	18	12	13	12	13	17	24	17	12	6	20	6
No desire to study any more	15	9	2	19	12	5	7	7	24	11	3	17	3

* *Answers provided by respondents who did not participate in training but would have liked to do so*

** *The respondent's state of health does not permit participation or they believe themselves to be to old to engage in the learning process*

Source: Adult Education Survey, Eurostat

- main emphasis on equality, which has had a considerable effect on the countries' financing policies (Tuijnman, Hellström 2003).

Unlike the Nordic countries, Estonia's current adult education policy has favoured the people who are active in the labour market, especially the occupational categories that are located on the higher levels of the social hierarchy. The country's financing models for adult education have favoured certain occupational categories, such as teachers and public officials. Despite the fact that provision for training of the unemployed has also been prioritised, the demand for training remains many times greater than the supply of training opportunities in the case of the unemployed.

During the economic crisis, the inequality between the participation rates of different groups will presumably increase, resulting in a situation where training is unavailable to those who would benefit from it the most in these adverse economic conditions – the less qualified workers, the unemployed, as well as people who have given up their search for a job. It is also probable that differences between occupational categories will increase as a result of the recent growing role of state institutions as clients of training companies compared to the private sector.

References

1. Bassanini, A., Booth, A., Brunello, G., De Paola, M., Leuven, E. (2007). Workplace Training in Europe, in G. Brunello, P. Garibaldi and E. Wasmer, E. (eds.). Education and Training in Europe. Oxford: Oxford University Press, pp. 143–309
2. Brunello, G., Medio, A. (2001). An Explanation of International Differences in Education and Workplace Training. European Economic Review 1, pp. 307–322
3. Carnoy, M. (1990). Foreword: How should we study adult education. In C. A. Torres (ed.) The politics of nonformal education in Latin America. New York: Praeger, pp. 9–16
4. Kallas, R. (2009). Koolituste kärpimine ähvardab töötaja vaesel ajal lolliks jätta? Eesti Päevaleht 27 February
5. Rubenson, K. (2006). The Nordic model of lifelong learning. Compare 36, pp. 327–341
6. Rubenson, K., Desjardins, R. (2009). The impact of welfare state regimes on barriers to participation in adult education: A bounded agency model. Adult Education Quarterly 59, pp. 187–207
7. Salu, M. (2009). Koolitusturu hinnad on kukkunud kolmandiku. Eesti Päevaleht 17 June
8. Tuijnman, A. C., Hellström, Z. (2003) Curious minds. Copenhagen: Nordic Gouncil of Ministers
9. Estonian Unemployment Insurance Fund database. http://www.tootukassa.ee/index.php?id=11328

4.8. Young people's self-realisation and position in the labour market

The global financial and economic crisis has had a direct effect on the European economic space and business environment. One of the signs of the shrinking economy is the loss of jobs and the increase in unemployment figures. After constantly decreasing for three years, unemployment began to rise sharply in Europe in 2008. It is worth noting that the unemployment rate for youth grew considerably faster than the overall unemployment rate. In the second quarter of 2009, there were approximately 5.4 million young people looking for work in Europe. Compared to the second quarter of 2008, Latvia, Lithuania and Estonia had experienced the fastest growth in the youth unemployment rate, as nearly a third of all young people engaged in the labour market were unemployed in the Baltic countries[21] (see Figure 4.8.1).

The current increase in unemployment in Estonia is largely based on the sudden rise in the unemployment rate of young people aged 15–24, which started during the second quarter of 2008 and was amplified at the beginning of 2009. While Estonia had a lower youth unemployment rate than the other EU countries in the second quarter of 2008, the country's youth unemployment has grown constantly since then, experiencing a sharp increase and reaching 27% during the second quarter of 2009 and 29.2% during the third quarter (ELFS data).

If we look at Europe as a whole, the situation is most difficult for youth in Spain, where nearly 40% of young people who want to work do not have the opportunity to do so. During the year in question, the situation for young people did not change in Germany and the Netherlands, while the youth unemployment rate in Poland and Slovenia rose by only a couple of percentage points.

Youth unemployment in EU countries

Due to the fact that youth unemployment has consistently been higher than the general rate of unemployment and has grown during the last few years at a considerably faster pace than unemployment among more experienced workers, the cooling of the economy has had an especially adverse effect on young people's labour market opportunities. In order to allow for the analysis of the situation of young people compared to older age groups, the unemployment rates for different age groups as of the second quarter of 2009 have been presented in Figure 4.8.2.

Young people's opportunities for finding work vary greatly from country to country. One reason for this is the difference in operating mechanisms, which leads to different opportunities being available in different countries for young people with similar personal qualities, education and skills. Thus, the opportunities available to youth are affected considerably by the institutions of each country, especially the education system and the organisation of the labour mar-

[21] The unemployment rate is calculated as a proportion of the workforce (= employed population + unemployed population) and non-active people (e.g. students) are not included in the calculation.

ket. Young people's chances of entering the labour market are related directly to the economic situation of the time, namely the demand for new workforce. When there is an economic downturn, the first people fired are often the last people who entered the labour market. This explains why the youth unemployment rate in Europe has increased at a significantly faster pace than the unemployment rate for older age groups. It is also more difficult to find a job during economic depression for people initially entering the labour market, for example school graduates, since labour turnover decreases considerably when there are fewer jobs.

A low youth unemployment rate and a very small difference between the unemployment rates of young people and older age groups is characteristic of countries where the labour market is closely connected to the education system. In the Netherlands, Denmark, Austria and Germany most young people complete their secondary education in vocational schools and practical training at companies is an important part of the curriculum.

During the years of economic growth that preceded the current situation, it was relatively easy for young people to find work in Ireland and the United Kingdom, which are known for their liberal labour markets. However, as the economy cooled, the risk of unemployment in the latter countries increased especially for young people. It has constantly been more difficult for youth to find jobs in France and the Nordic countries, where the education system focuses on providing general knowledge and young people acquire specific job-related knowledge at their place of work after graduation. Furthermore, the regulation of the labour market does not improve young people's chances of finding a job, since the people already engaged in the labour market are relatively well protected and it is expensive for the employer to let go an employee they have already hired. Employers may not want to risk hiring young people who need training, since if they should be unsuitable for the job, it will be comparatively expensive to fire them.

Young people are faced with the most difficult situation in Southern Europe where the position of youth in the labour market did not improve substantially even during the years of economic growth. In 2009, nearly a quarter of the young people in Italy and Greece were neither studying nor working, although they expressed the wish to work. The situation is even worse for youth in Spain which was deeply affected by the economic crisis.

In Southern Europe, the transition of youth to the labour market is not encouraged by the education system, which teaches general skills, or by the strong protection afforded to those already engaged in the labour market.

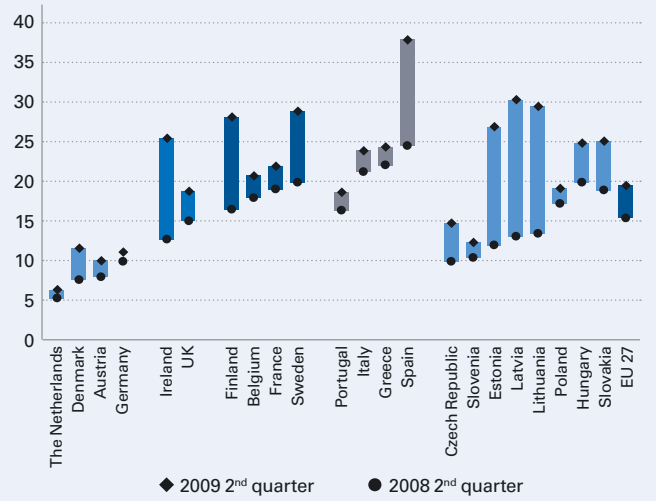
In the new EU member states, the combinations of labour market regulations and education systems are very different. As a result, the situation of young people is also diverse in the new EU countries and depends greatly on the economic situation of the country in question at any given time. While Poland and Slovakia used to stand out due to their high youth unemployment risk in earlier years, the difference in employment between age groups has now also increased in Latvia, Lithuania and Estonia.

Education and labour market opportunities

In most European countries, young people's level of education rose considerably during the past decades, especially due to the expansion of higher education. Reimer, Noelke and Kucel (Reimer, Noelke et al. 2008) compared 22 European countries and, in general terms, confirmed the assertion that a higher number of young people completing their higher education causes larger differences to occur between the unemployment risk and professional status of graduates of different specialties.

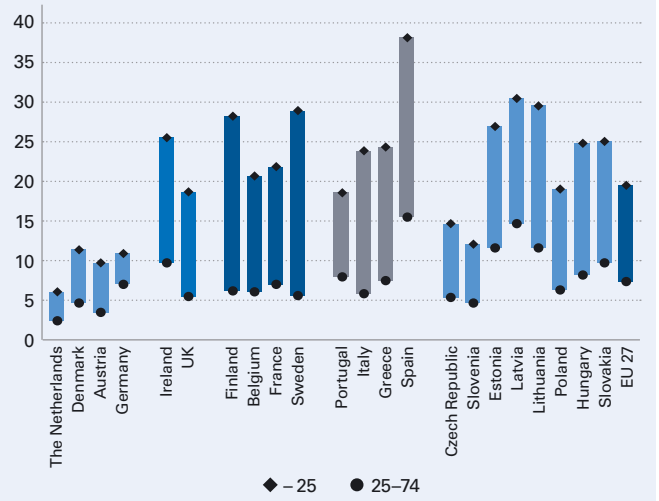
The above-mentioned study showed that in all European countries, except for Estonia, graduates in the humanities had a comparatively higher rate of unemployment in 2004 and 2005 than the graduates in other specialties (EU Labour Force Survey data). An analysis of the wages of university graduates in Estonia revealed that there were no major differences between graduates in different specialities in terms of their entrance to the labour market in 1999–2005. Information technology, law, business and administration proved to be the most profitable specialties, followed by natural and exact sciences, engineering, production and construction.

Figure 4.8.1. EU youth unemployment rates during the 2nd quarter of 2008 and 2009, %



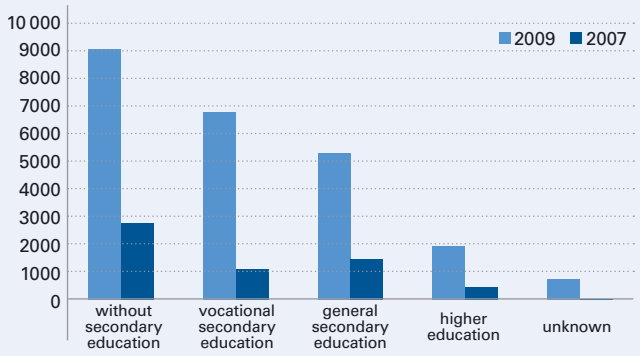
Source: Eurostat, Estonian Labour Force Survey (ELFS)

Figure 4.8.2. Unemployment rates for young people (aged 15–24) and people over 24 during the 2nd quarter of 2009, %



Source: Eurostat

Figure 4.8.3. Youth who registered as unemployed in 1.01.2009–15.10.2009 and 1.01.2007–31.12.2007 by level of education (thousands)



Source: Unemployment Insurance Fund

Graduates in specialties related to biosciences, the humanities and arts were less well paid (Rõõm 2007).

The explanatory memorandum attached to the Estonian Higher Education Strategy 2006–2015 included an opinion presented by experts and employers who believed that "... the rising admission numbers for the so-called soft specialties are a dangerous development". The rising admission rates in specialties related to social sciences, business and law were pointed out. Regardless of the fact that during the past decade the number of state-commission student places has been reduced by a fifth, the largest share of students (nearly 2/5) still studied specialties related to social sciences, business and law during the 2008/2009 academic year. As mentioned earlier, graduates in the above-mentioned specialties have also been successful in finding jobs in the Estonian labour market. At the same time, it has to be taken into account that the survey results date back to a time when Estonia's economy was growing and the first larger cohorts of university graduates were moving into the labour market. More than eight thousand people graduated from their bachelor's and diploma studies for the first time during the 2002/2003 academic year and the number of graduates increased to ten thousand by the 2004/2005 academic year.

The youth unemployment rate has consistently been lowest among young people with higher education, even during the current economic downturn. However, there are no studies with more accurate results regarding the ability of graduates in various specialties to cope with the effects of the economic recession. The increasing involvement of young people in higher education in the labour market reduces the opportunities available to less educated individuals. The most frequent explanation for this situation is replacement, since in conditions where there is a shortage of jobs, even young people with higher levels of education compete for the same position (Kalleberg 1996). Solga (2002) offers another explanation – stigmatisation by negative selection. She claims that the expansion of education has not only decreased the number of people with a lower education in the society, but has also caused a lower level of education to become a bad sign.

In addition to the rise in the level of education of young labour market entrants, Estonia has also seen a polarisation of young people's educational paths. Compared to the 1980s, there has been a sudden expansion of higher education but, on the other hand, the percentage of youth without secondary education has also increased.

While higher education has clearly been feminised, men are often limited to acquiring basic education. During the 1994/1995 academic year, the percentage of women and men among students was approximately equal (51% and 49%, respectively). In the following years, the percentage of male students decreased constantly, until it stabilised during the period 2001/2002–2008/2009 (38–39% men and 61–62% women) (Klooster 2009). In 2008, no less than one third of the young men participating in the labour market had only a basic education or were at an even lower level of education. Men's shorter education increases their risk of unemployment and also presents a challenge for the relations between men and women. Both young women striving towards higher education and young men limiting themselves to basic education may experience difficulty finding a partner with a similar educational background.

Youth unemployment: problems and opportunities

According to the labour force survey, the estimated number of unemployed people during the third quarter of 2009 was 102,000 – the highest unemployment rate for Estonia after the restoration of independence. The increase in unemployment has slowed during the last two quarters. One in every four unemployed individuals was a young person aged between 15 and 24, who was not studying or working but was prepared to start work within two weeks if the opportunity arose. This means that there were nearly 25,000 unemployed young people, which is more than the population of the city of Viljandi.

The unemployment rate for young men was higher during the second quarter of 2009 (35.1%) than that of young women (25.7%). Many of the youth are looking for their first job – school graduates, young people who interrupted their studies and young people who had never worked before made up nearly a third of all unemployed individuals between the ages of 15 and 24. Nearly half of all unemployed young people have officially registered themselves at the Unemployment Insurance Fund. In Estonia, youth unemployment depends on the educational background, although the effect of this factor is related to the economic situation. In 2007, during the time of economic growth, unemployment risks were clearly divided by level of education, although the differences were not very large (see Figure 4.8.3). The chances of finding a job improved for all young people, especially for those with a low level of education.

As a result of the economic downturn, unemployment has increased drastically among youth with less education. Youth without a secondary education, most of whom are men, make up the largest share of unemployed young people. During the real estate boom, the above-mentioned people were engaged in elementary occupations in the construction sector, but currently it is nearly impossible for them to find work due to their low level of education and lack of professional skills.

Although considerably fewer young people complete vocational secondary education than general secondary education, the former group includes notably more unemployed individuals. It seems that vocational secondary education does not function as a safety net in Estonia. Although youth with higher education are also finding it more difficult to find work than before, they still enjoy a clear advantage over the others. Other factors have also contributed to the rise in the youth unemployment rate. In recent years, an increasing number of

young people from the large generation born during the Singing Revolution started to enter the labour market.

In the case of unemployment, it is mainly the duration of the phenomenon that matters, rather than its scale. The economy cannot expand without available workforce. On a personal level, it is very important for unemployed individuals not to lose the social contacts and skills necessary for finding work. During the final months of 2009, there were no signs that the youth unemployment rate would fall. Furthermore, most people who had lost their jobs at the beginning of the year were still unemployed. For example, 59% of the young people who were registered by the Unemployment Insurance Fund during the first quarter of 2009 were still registered on 1 September (the corresponding indicator in 2007 was 16%).

The development of measures aimed at young people has been based on the premise that the involvement of youth in society either through the education system or the labour market is of crucial importance. In the Netherlands, for example, the age limit for providing compulsory school education was raised from 16 years to 18 years in order to increase the educational potential of the workforce. The situation in Estonia is also most problematic for people who have only completed basic education or have even failed to complete that. However, we have recently made it possible for youth without basic education to acquire vocational education. At the same time, we lack accurate data for assessing the value of such education in the labour market.

In any case, it is important to allow young people, especially those with fewer educational resources, to study during the economic recession. It is also certain that young people need a functioning housing and education allowance system, since parents are often unable to support their children. This investment is important both in the short and long term. It directly decreases youth unemployment and provides young people with a meaningful activity. Despite the demographic decline, vocational training centres were filled with students in the autumn of 2009 and several institutions found it impossible to accept all applicants. For example, according to the Study Counselling Centre in Pärnu County, the local vocational training centre that held its entrance exams after the upper secondary schools was unable to accommodate 137 young basic school graduates. In the circumstances of the economic recession, their prospects in the labour market are virtually non-existent.

Although education is not a miracle cure, it can still be said that in addition to specific knowledge and skills, education also fosters flexibility in people. Generally, people who have been educated for longer are better able to engage in retraining, if necessary, and adjust to economic changes.

In 2009, more than five thousand youth (one in every five unemployed young people) received career counselling from the Unemployment Insurance Fund, nearly 1,500 participated in training and some engaged in consultations with specialists. Measures aimed at allowing young people to work at a specific company (practical training, work practice, wage support) have been few and far between. While Estonia has thus far ranked below most European countries in terms of the percentage of the GDP invested in active labour market measures, the share of resources allocated for this purpose will experience a sharp increase in 2010. Compared to the 214 million EEK cost prediction in 2009, the predicted costs for 2010 amount to 402 million EEK, most of which (353 million EEK) will be contributed by the European Social Fund. The reduction of youth unemployment will depend largely on the rational use of this sum.

Conclusion

Estonia's youth unemployment rate has been high throughout the period following the restoration of independence. During the economic crisis though, it has experienced an especially conspicuous increase compared to the average European indicator. Youth with different levels of education face different levels of unemployment risk. It is easier for young people with higher education to find work, while those with a lower level of education, especially basic education, have a significantly smaller chance of success in the labour market. This reflects the differentiation of education in Estonia.

Since vocational education also fails to provide any real protection from unemployment, it can be concluded that the specialties being taught do not correspond to the needs of Estonia's economy. The gender-based polarisation of education has led to a situation where the percentage of young women with higher education considerably exceeds the corresponding indicator for young men, while there are many more of the latter among youth with lower levels of education. Since the jobs belonging to the categories of elementary occupations and craft and related trades workers were the first to be lost as a result of the economic crisis, the rate of unemployment is higher among young men than young women.

It is crucial to solve the problems faced by youth in order to reduce unemployment in general as well as reduce the number of young people leaving the country to find work elsewhere. It is also very important to take into account the long-term effect of the constant aging of the Estonian population. While in 2008, there was one individual over the age of 65 for every four (working-age) people aged between 15 and 64, in 2020 the ratio will be 3:1 (Kask 2009). Since we already have a shortage of young people, it is all the more important to be able to integrate them into the education system or labour market and thus provide them with the opportunity to engage in self-realisation in Estonia.

References

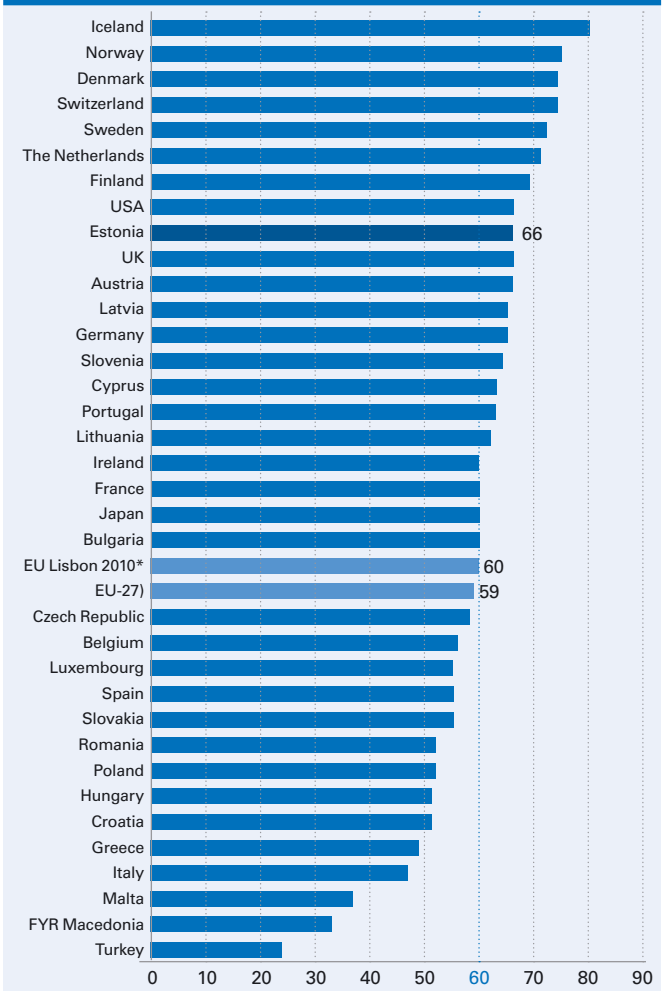
1. Kalleberg, A. L., (ed.) (1996). Changing contexts of careers. Generating Social Stratification. Westview, Boulder
2. Kask, U. (2009). Rahvastiku areng ja jätkusuutlikkus. Presentation at the Estonian Cooperation Assembly conference on 20 November 2009. Tallinn, Statistics Estonia
3. Klooster, K. (2009). Statistiline ülevaade kõrghariduse õppekavadel õppijate näitajatest. Tartu, Ministry of Education
4. Reimer, D., Noelke, C., Kucel, A. (2008). "Labor Market Effects of Field of Study in Comparative Perspective: An Analysis of 22 European Countries." International Journal of Comparative Sociology 49(4–5), pp. 233–256
5. Rõõm, T. (2007). Haridus ja tööturg Eestis. Working Paper Series. Tallinn, Bank of Estonia. 12
6. Solga, H. (2002). "'Stigmatization by Negative Selection': Explaining Less-Educated People's Decreasing Employment Opportunities." European Sociological Review 18(2), pp. 159–178

4.9. Women in the labour market: the effect of parental leave on career opportunities

Parental leave and state-subsidised child care were instituted in socialist countries in order to promote the participation of women in the labour market. The choice to embark on a course towards a market economy made by the countries that had suffered under totalitarian regimes automatically led to the re-evaluation of the previous social order as a whole, and not only brought about the derogation of the practices and ideas of state socialism, but also of its constituent project of women's emancipation (e.g. Fodor 2004; Dunn 2004; Weiner 2007).

When we compare Estonian women on an international scale, it is still evident even today that, on the one hand, many Estonian women participate in the labour market as full-time employees but, on the other hand, they are rather likely to leave the labour market for a period of time in order to have children and take care of them. This, in turn, raises the question as to whether women's educational human capital is being harnessed effectively in Estonia. In order to address the issue, this subchapter focuses on the effect of absence from the labour market as a result of parental leave on the mother's career. The analysis is based on the data collected for the Estonian Social Survey (ESS).

Figure 4.9.1. Women's participation in the labour market (ages 15–69), 2008



* EU Lisbon goal for 2010

Source: Eurostat

Women's participation in the labour market

In 2008, 66% of Estonia's working-age women (ages 15–65) were employed, which is an average figure when compared with other European countries, but nevertheless, surpasses the goal of 60% set by the European Union for 2010.

Figure 4.9.1 shows that women's employment levels are higher in social democratic states such as the Nordic countries and the Netherlands (up to 75–80%), as well as liberal states such as the United Kingdom and the USA, while in Southern European countries with strong traditional gender regimes the rate of employment for women is significantly lower (24–50%). Differences are also rather large between former socialist countries and in many cases (e.g. in Poland, Romania, Hungary, Croatia) the employment rate for women does not even exceed 50%.

Women in postsocialist countries differ from the others not only by their high labor market participation, but also by their fulltime working hours: only 10% of Estonian women are employed parttime (see Figure 4.9.2). In other countries with a similarly high female economic activity rate (The Netherlands, Norway, Sweden, Denmark) there are considerable more parttime workers among women.

Despite their strong attachment to the labour market, many women in Estonia remain absent from the labour market for relatively long periods of time in order to take care of children. This situation can be explained by the traditional nature of Estonia's gender regime, according to which raising children is primarily the task of women, despite their high rate of participation in the labour market.

Choices: children or work / children and work

The decision to leave the labour market and its consequences do not affect all women in the same way. Based on the typology of preferences related to labour market participation (Hakim 2000; 2004), it is possible to speculate that the women whose position in the labour market is strong can allow themselves a longer absence in connection with parental leave than women who have to prove their dedication to work or have to return to work quickly due to financial reasons. On the other hand, career-oriented mothers can be expected to be less prone to absence from the labour market for extended periods of time compared to mothers who primarily see their job as a source of income and a testament to the inevitability of modern life.

For Estonian women, returning to work while their child is young is closely related to the parents' belief that remaining at home with the child means being left out of the society (Pajumets 2007a; 2007b). Both the labour market as well as state policy view mothers' parental leave either as lost working time resulting in a loss of profit or a loss of qualification due to absence from the labour market, and thus its benefits for the society are rarely mentioned (Arun Shoba et al. 2004). This makes it all the more necessary to ask what women's absence from the labour market means in Estonia with regard to their further prospects in the labour market.

The decision, strategy and duration of being absent from the labour market is shaped by various institutional factors. These include especially the legislation which makes it possible to take unpaid or paid leave from the labour market and requires the employer to guarantee the employees their jobs during the time they are on parental leave. Another important factor is the available child care system. Such clearly defined conditions are a signal that lets both the employer and the employee know what kind of behaviour is expected from them.

Child care: the concern of the family or the society

During the Soviet era, state-provided child care was guaranteed as a political choice, along with everything that accompanied it. During the restoration of Estonia's independence, the traditional family was placed high in the hierarchy of values and the society promoted a family model that was dominant before World War II, where the man was the breadwinner (Narusk 1992). The network of child care institutions was reduced in size, especially with regard to places for children under three, while parents were given the right to take parental leave until their child reached the age of three. However, the call for mothers to stay at home proved to be a short-lived slogan, since most families needed the income of both parents.

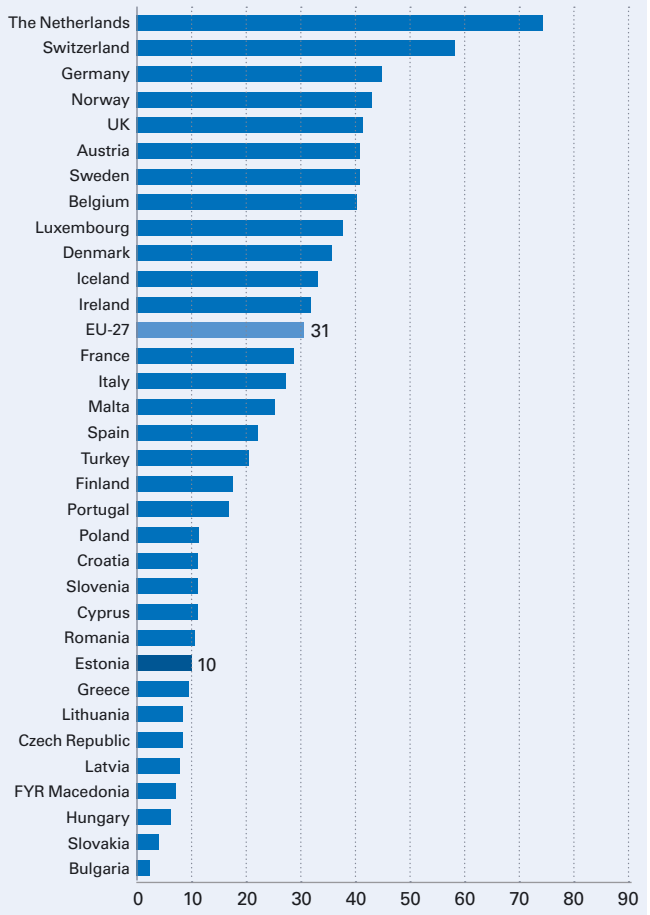
Earlier studies (see, for example, Roosalu 2006) have shown that in Estonia nearly one in two fathers of pre-school children say that their partners are the primary providers of child care during their working hours, while only one tenth of the mothers reported that their child was under the care of their partner during their workday. In half of the cases, child care was provided at kindergartens and in a fifth of the cases, it was provided by relatives or other people the parents knew. In other words, mothers stay home with small children more frequently than fathers, and children whose mothers work usually go to the kindergarten.

Estonia is distinguished from many other EU countries by the fact that although it has considerably fewer children under three attending kindergartens than EU countries on average, most of the children in day care use the full-time child care service (see Figure 4.9.3).

In 2007, 81% of Estonia's pre-school children who were more than three years old attended full-time child care every week (the EU 27 average was 40%). An even larger percentage of children received full-time child care in Iceland and Denmark (91% and 82%, respectively) where women's participation in the labour market is comparable to Estonia. At the same time, the percentage of children's kindergarten attendance was four or more times lower in several countries with similar levels of women's participation in the labour market (21% in the United Kingdom, 11% in the Netherlands).

Thus, women participating in the Estonian labour market are quite likely to stay at home for a considerable period of time in connection with having a child, but since part-time work is comparatively rare, they either stay home full-time (while the child is a baby) or work full-time. The welfare system in place in Estonia has brought about a general trend of favouring women's absence from the labour market by the time the child is born and during a lengthy period thereafter. Although the legislation offers people who are absent from the labour market various guarantees related to retaining their competitiveness after the end of parental leave, the main support mechanism is still the relatively broad child care system in place for children over three years of age.

Figure 4.9.2. Women's engagement in part-time work in 2008: percentage of all employed women



Source: Eurostat

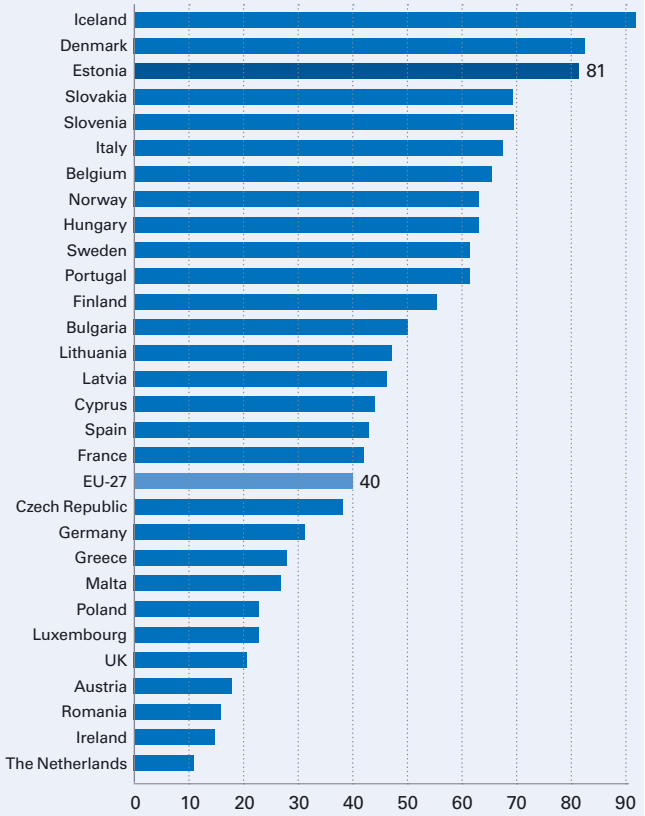
The effect of parental leave on occupational mobility

It can be said that men and women are equal agents in Estonia's labour market until the female employee has a child and goes on parental leave. As of that time, mothers (of children below the age of three) are in a worse position with regard to competitiveness in the labour market and advancing their career, since their employment history, work experience and skills are surpassed both by the men of their generation as well as women without (small) children who have not taken a break from their career.

What opportunities do women on long-term parental leave have to advance their careers compared to women who have not taken parental leave or spent a shorter period of time on parental leave?

The best data available on this subject, which is representative of the entire Estonian population, was collected for the Estonian Social Survey conducted in 2004 by Statistics Estonia. The data is retrospective as the respondents were asked to remember the events of their lives and therefore reflects the trends that shaped Estonia over the past 50 years. It can be said with certainty that a study conducted in 2008 would not provide significantly different results, since the new regulation established for parental leave has not yet affected the development of those women's careers who had their children after the changes took effect in 2004.

Figure 4.9.3. Spends more than 30 hours per week at a child care institution; percentage of children between three and compulsory school age (2007)



Source: Eurostat, authors' calculations

The survey that examined the upward and downward mobility of women aged 25–50 in the labour market (measured on the scale of the International Socio-Economic Index of Occupational Status, Ganzeboom et al. 1992) throughout various periods in history (from the 1960s until the beginning of this century) reveals that, in general, absence from the labour market due to parental leave does affect women's subsequent labour market opportunities.

Taking into account the time of mobility as well as other individual and structural characteristics, the data collected for this survey shows that an absence from the labour market due to parental leave lasting for more than six months significantly decreases the likelihood of women being upwardly mobile or downwardly mobile in the future in terms of their labour market position (compared to the likelihood of remaining at the same position) after returning to the labour market. These results allow us to conjecture that the career breaks related to parental leave generally keep women in the same spot with regard to the labour market, i.e. will not let them move down while also preventing them from using opportunities for moving up. It is likely that this can, in part, be explained by institutional regulation – when returning to the labour market after parental leave, women are usually entitled to the same labour market position as they had before or a similar position on the same level of the hierarchy.

An analysis of the effect of career breaks resulting from parental leave on subsequent labour market mobility by time periods revealed that the effect has not always been the same. In the 1960s, parental leave itself as well as the duration of parental leave had considerable influence on subsequent upward and downward mobility. The time spent on parental leave significantly decreased the chances of further upward mobility. The "status quo"-effect of absence from the labour market in connection with parental leave manifested itself primarily during the 1970s and became even stronger in the 1980s. During the 1980s, however, it was the length of the parental leave that increasingly became the differentiating factor – the time spent away from the labour market in the case of a longer parental leave increased subsequent labour market mobility, both in the upward and downward direction. At the beginning of the 1990s, the influence of parental leave on further career opportunities weakened and women's labour market opportunities began to be defined more by other structural factors. However, the effect of parental leave was "reinstituted" as the stability of the economy and the labour market increased. Since the end of the 1990s, it has once more been apparent that the time spent away from the labour market in connection with parental leave has a significant influence on people's subsequent career mobility. At the end of the 1990s, the period of absence from the labour market again tended to cause a standstill in women's careers by reducing the likelihood of either upward or downward mobility after they returned to the labour market. By the beginning of the current decade, however, parental leave had become a factor that had an adverse effect on women's careers, since absence from the labour market significantly decreased the probability of upward mobility, while the duration of parental leave increased the likelihood of downward mobility.

Thus, absence from the labour market due to parental leave actually does affect women's subsequent position in the labour market. Nevertheless, being absent from the labour market does not always have negative consequences. Instead, it usually means a standstill in the labour market position of the person in question. Women's individual resources play an important role in the outcome – research points to the fact that absence from the labour market usually does not have negative consequences for women whose position in the labour market was strong before going on parental leave, while women whose position was weaker before their absence sometimes cannot even count on the preservation of their job that they are guaranteed by law.

Unfortunately, the available data does not allow us to analyse other aspects related to people's choices, which would certainly be worth taking into account. For example, it would be useful to know to what degree the decision to take leave of absence from the labour market and the decision regarding the duration of that absence are based on personal preferences and to what degree those choices are forced upon people. The analysis also does not take into account people's satisfaction with their own choices, work and family life.

Conclusion

If we place the results cited above in the context of contemporary political choices, it is apparent that the (temporary) exclusion of women from the labour market is a noteworthy declaration of traditional attitudes, which is not, however, accompanied by the flexibility necessary for balancing work and family life. Women who are active in the labour market before having a child are in a better position and probably have more opportunities for combining work and family life according to their own wishes. However, a mother's professional success is usually based on what she accomplished while working full-time and competing with the other employees on an equal

basis. On the other hand, mothers who are less competitive in the labour market cannot afford part-time work, not so much because of career-related reasons, but rather due to the need to cope financially on a daily basis. Many families face a situation where the mother may be forced to stay home longer than she would like to because of the lack of child care places available to children under three. On the other hand, the child will have to spend longer days in child care during later years because of the scarcity of good part-time jobs. We should think about the potential broader consequences of these choices both at the level of the individual and the society.

Instead of completely detaching women from the labour market for as long as possible, we should facilitate more flexible transitions since the long absence of women from the labour market actually has a negative effect on their subsequent labour market opportunities.

It is likely that the new normative regulations included in the parental benefit system currently in place will affect the birth rate as well as women's labour market opportunities after parental leave. Although these issues should be discussed and studied in detail, we cannot do so yet based on the data available to us at present.

References

1. Ainsaar, M. (2001). The development of children and family policy in Estonia from 1945 to 2000. Yearbook of Population Research in Finland, 2001, pp. 23–40
2. Arun, Shoba V., Arun, Thankom G., Borooah, Vani K.(2004). 'The effect of career breaks on the working lives of women', Feminist Economics, 10:1, pp. 65–84
3. Dunn, E. (2004). Privatizing Poland: Baby Food, Big Business, and the Remaking of Labor. Cornell University Press
4. Fodor, E. (2004). The State Socialist Emancipation Project: Gender Inequality in Workplace Authority in Hungary and Austria. In Signs: Journal of Women in Culture and Society 2004, vol. 29, no. 3
5. Ganzeboom, H. B. G., de Graaf, P. M., Treiman, D. (1992). A standard international socio-economic index of occupational status. Social Science Research 21, pp. 1–56
6. Hakim, C. (2000). Work-lifestyle Choices in the 21st Century, Oxford University Press, Oxford
7. Hakim, C. (2004). Models of the family in modern societies: ideals and realities. Ashgate Publishing Company: Burlington, USA
8. Narusk, A. (1992). 'Parenthood, Partnership and Family in Estonia', in Björnberg, U. (ed.), European Parents in the 1990s. Contradictions and comparisons. New Bruswick and London: Transaction Publ
9. Pajumets, M. (2007a). Soo konstrueerimine ajakasutuse kaudu: isade ja emade argipraktikad ja-konfliktid. Vaher, B., Seeder, K. (eds.). Töö ja pere: paindlik töökorraldus ja lastevanemate tööhõive. Tallinn: AS Ajakirjade Kirjastus, pp. 79–118
10. Pajumets, M. (2007b). Miks emme läheb tööle? Naiste subjektiivsed ootused ja tööle antavad tähendused. Vaher, B., Seeder, K. (eds.). Töö ja Pere: paindlik töökorraldus ja lastevanemate tööhõive. Tallinn: AS Ajakirjade Kirjastus, pp. 35–78
11. Roosalu, T. (2006). Töö ja pereelu ühildamine. [Reconciliation of Work and Family]. Eamets, R (ed.). Labour Market 2005. Yearbook. Tallinn: Statistics Estonia, pp. 78–84
12. Weiner, E. (2007). Market dreams: gender, class, and capitalism in the Czech Republic. Ann Arbor: University of Michigan Press

4.10. Second generation Russians in the Estonian labour market

The problems of the Russian-speaking population are some of the most thoroughly researched issues in Estonia. However, less attention has been devoted to the second generation of non-Estonians, a group which, for the purposes of this analysis, includes young Russians (aged 18–35) who were born in Estonia but at least one of whose parents was born outside Estonia.

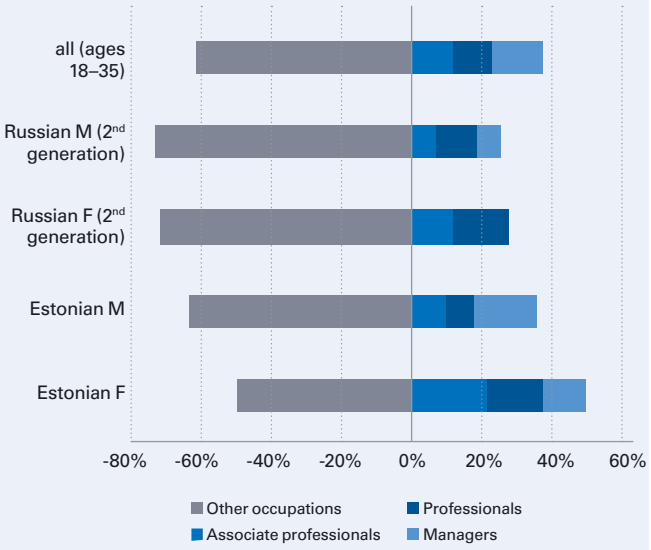
The fact that the second generation of Russians has lived in Estonia since birth makes it possible to presume that they are similar to Estonians in terms of many indicators. This should primarily be true for their labour market opportunities, since studies in many other countries have shown that the second generation of immigrants is significantly more successful in the labour market than the first generation (van Ours, Veenman 2003; Hammarstedt 2009).

This assumption is contradicted by a number of conditions, however: the primary socialization environment of Russians differs from that of Estonians (e.g. Estonian and Russian-language schools): they inhabit a different information field than Estonians (Vihalemm 2008): they have a different social network, etc. These are factors that reproduce differences rather than facilitate integration. Some Western research has also indicated that the position of second generation immigrants in the labour market is less secure (Nielsen et al. 2003; Borjas 2006). This poses the question of whether having a common country of birth ensures equal opportunities in the labour market or whether other factors have a greater effect on the process.

Professional position

In order to describe the labour market opportunities of the second generation of Russians (based on The Integration of the European Second Generation (TIES) project and the Estonian Labour Force Survey (ELFS)), we will look at their distribution by occupational categories (see Figure 4.10.1). The analysis will focus on the top of the professional hierarchy – managers, professionals and associate professionals. Those are the positions that are commonly associated with the under- or overrepresentation of ethnic groups which is one of the causes of ethnic stratification in society.

Figure 4.10.1. Professional position of young people between the ages of 18 and 35 by ethnic group (%)



Source: Estonian Labour Force Survey 2008

Table 4.10.1. Comparison of the net income of selected groups, %, 2008

Average net income of all people aged between 18 and 35 = 1			
Russians		Estonians	
18–35-year-olds, 2nd generation	0.80	1.05	18–35-year-olds
men	0.91	1.14	men
women	0.57	0.81	women
proficient in Estonian	1.0		
not proficient in Estonian	0.72		
with higher education	1.17	1.41	with higher education
without higher education	0.77	0.96	without higher education
Estonian citizens	0.91		
without Estonian citizenship	0.72		

Source: Estonian Labour Force Survey 2008

The data collected for ELFS 2008 shows that second generation Russians are underrepresented among managers. If every sixth respondent among all men between the ages of 18 and 35 had achieved a managerial position, then only one in fourteen had achieved the same among the corresponding group of second generation Russians. Estonians between the ages of 18 and 35, on the other hand, were overrepresented among managers.

At the same time, the percentage of women among professionals with higher education was equal for Estonians and Russians, ranging around 16–17%. This can be seen as a type of "hinterland" for managers, although regrettably few women reach the top of the career ladder.

Second generation Russians are also underrepresented among associate professionals. In particular, the percentage of young Russian women among associate professionals is two times lower than that of Estonian women belonging to the same age group.

Wage differences

Wages are an important indicator for assessing the labour market position of the second generation of the Russian population. Studies conducted thus far have shown that the equality of wages between Estonians and non-Estonians at the beginning of the 1990s has gradually transformed into a 10–15% wage gap in favour of Estonians (Leping, Toomet 2008). Admittedly, this is not a unique situation – research conducted in Western Europe has indicated that after immigrants arrive in their new homeland, their initial wage difference compared to the native inhabitants may be as high as 40% (Adsera, Chiswick 2007). The situation in Estonia is not as drastic, although we also cannot speak of income equality between Estonians and second generation immigrants.

The comparison of data presented in Table 4.10.1 is based on the average net income of all employees aged between 18 and 35 in 2008. This has been given the numerical value of 1. The average income of the groups has been presented in relation to this indicator and we have analysed the effect of various factors on the relationship. Where available, data has also been provided for Estonians in order to provide a basis for comparison.

The most common tendency is for second generation Russians to be paid less than Estonians belonging to the same age group, although the difference is not very large in the case of men (young Russian men earned approximately 90% of the overall average). The average net income of young Russian women, on the other hand, amounted to only three fifths of the overall average.

The wage differences between ethnic groups are also affected by level of education, citizenship and Estonian language proficiency. The completion of higher education reduces but does not eliminate differences in income. It is impossible to overlook the fact that compared to other levels of education, higher education gave young Estonians a greater advantage than it did for Russian youth with higher education. The income of second generation Russians who, according to their self-assessment, were proficient in Estonian was on par with Estonia's average income, while respondents who were not proficient in Estonian were paid approximately three quarters of the overall average. It should be kept in mind, however, that Russians with good Estonian language skills are often characterised by a higher than average level of education.

Though the respondents with Estonian citizenship did have an advantage over non-citizens, citizenship itself does not ensure that the income of a second generation immigrant is equal to the overall average net wage.

Professional career opportunities

As a general tendency, the promotion prospects of second generation Russians are worse than those of young Estonians[22]. However, despite the fact that Estonians with higher education are promoted most frequently (48% have been promoted); the difference with Russians aged 18–35 is not that great (the corresponding indicator for the latter is 41%). Estonian language proficiency plays an important role in the Russians' potential for promotion – the promotion percentage of Russians with excellent written communication skills in Estonian is similar to that of Estonians.

[22] The following analysis is based on the data of the TIES (The Integration of the European Second Generation) project survey.

Various studies on training have shown that employees at the higher levels of the professional hierarchy participate in training more frequently. Due to the fact that there are considerably fewer Russians than Estonians in these high-level positions, Russians also participate in training less often.

If we take into account the information presented above, it is not surprising that the career satisfaction of second generation Russians is lower than that of Estonians (72% and 82%, respectively). People with higher education are an exception to this rule since both Estonians and Russians who belong to this group generally have a similar level of satisfaction (83–84% are satisfied with their career). Russians whose Estonian language skills are excellent estimate their career-related progress in a manner that is relatively similar to the views of Estonians. Russians who had studied in Estonian provided a remarkably positive assessment of the conformity between their career and their expectations. At the same time, we have to consider the possibility that the expectations of the latter group might have been different from the rest of the young Russians since they were already used to competing with Estonians in the education system. Russian youth with average or poor Estonian language skills and without Estonian citizenship expressed the greatest disappointment with their professional careers.

Success factors in the labour market

We used logistic regression analysis to determine the factors that affect the careers of young Russians more or less compared with young Estonians (see Table 4.10.2).

Table 4.10.2 shows that if we compare people of the same gender and similar age, people whose place of residence and level of education are similar, and whose jobs belong to similar branches of the economy, the opportunities of second generation Russians for working in a high position and belonging to a higher income segment are usually still smaller compared to Estonians. This is true even in cases where the individual in question is an Estonian citizen or has studied in Estonian. Russians who have excellent written Estonian language skills are an exception to this trend and are equal to Estonians in terms of their chances of reaching a high position in the professional and income hierarchy.

The prospects of second generation Russians with regard to being promoted in their current job and participating in workplace training are also more modest than those available to Estonians. At the same time, having Estonia-specific human capital increases the likelihood of promotion. Furthermore, Russian youth who have very good language skills, are Estonian citizens or have studied in Estonian are as likely to be promoted as young Estonians.

Study results also reveal that young second generation Russians are generally less satisfied with their careers than Estonians even if the former are Estonian citizens. As an exception, second generation Russians who have either studied in Estonian or have an excellent command of the national language tend to view their professional careers as positively as Estonians. It can therefore be said that language skills and studies in Estonian increase the conformity between labour market expectation and reality.

Table 4.10.2. Labour market opportunities of young second generation Russians compared to young Estonians (ages 18–35), logistic regression analysis

Compared to Estonians	Working as a professional or manager*	Belonging to a higher income segment**	Being promoted in my current job	Participating in training in my current job	My professional career meets my expectations
Russians (second generation)	--	--	--	--	--
Russians whose written Estonian language skills are ...					
... excellent	0	0	0	-	0
... good	--	--	--	--	--
... average or bad	--	--	--	--	--
Russians who ...					
... have Estonian citizenship	-	--	0	--	-
... do not have Estonian citizenship	--	--	--	--	--
Russians who ...					
... have studied in Estonian	-	--	0	--	0
... have not studied in Estonian	--	--	--	--	--

The analysis compares people of the same gender and similar age, people whose place of residence and level of education is similar, and whose jobs belong to similar branches of economy

0 the opportunities of the Russians do not differ from those available to Estonians

- the opportunities of the Russians are worse than those available to Estonians (significance level $p < 0.10$)

-- the opportunities of the Russians are worse than those available to Estonians (significance level $p < 0.05$)

** The respondent currently works as a manager, professional or associate professional*

*** The respondent's average monthly net income from work-related sources exceeds 7000 EEK*

Source: TIES survey 2008

Conclusion

Based on the analysis presented above, it is obvious that being born in Estonia has not ensured the second generation of Russians the same labour market opportunities that are enjoyed by Estonians. Second generation Russians are underrepresented in positions that belong to the top of the hierarchy of occupational categories (managers, professionals and associate professionals).

The average net income of second generation Russians is lower than that of Estonians who belong to the same age group. Furthermore, compared to Estonians, their career prospects are worse. Russians are less likely to be promoted and are less satisfied with their careers.

At the same time, Russian-speakers whose Estonian language skills are excellent see their career-related progress in a manner that is relatively similar to the views of Estonians. A remarkably positive assessment of the conformity between their career and their expectations was also provided by Russians who had studied in Estonian.

Thus, it can be concluded that excellent command of the Estonian language is the factor that allows second generation Russian-speakers to compete on a relatively equal basis in the Estonian labour market. Poor language skills, however, significantly limit the opportunities that are available to Russian-speakers.

References

1. Adsera, A., Chiswick, B. R. (2007). Are there gender and country of origin differences in immigrant labour market outcomes across European destinations? Journal of Population Economics, 20, pp. 495–526
2. Borjas, GJ. (2006). Making It in America: Social Mobility in the Immigrant Population. The Future of Children, 16(2), pp. 55–71
3. Hammarstedt, M. (2009). Intergenerational Mobility and the Earnings Position of First-, Second-, and Third-Generation Immigrants. KYKLOS, 62(2), pp. 275–292
4. Leping, K.-O., Toomet, O. (2008). Emerging ethnic wage gap: Estonia during political and economic transition. Journal of Comparative Economics, 36(4), pp. 599–619
5. Nielsen, H. S., Rosholm, M., Smith, N., Husted, L. (2004). The school-to-work transition of 2nd generation immigrants in Sweden. Journal of Population Economics, 16(4), pp. 755–786
6. van Ours, J. C., Veenman, J. (2003). The Educational attainment of second-generation immigrants in The Netherlands. Journal of Population Economics, 16(4), pp. 739–753
7. Vihalemm, P. (2008). The Infosphere and Media Use of Estonian Russians. Estonian Human Development Report 2007. Tallinn: Public Understanding Foundation, pp. 78–81

4.11. Changes in the nature of work – the dynamics of subjective assessments

Several work-related studies have revealed that the nature of work is changing due to technological development and the widespread implementation of information technology. On the one hand, the needs of the labour market are changing with regard to various jobs, while on the other hand, new technological facilities have brought about changes not only in the nature of work, but also in the concepts of the workplace and working time.

Bauman (1998) has claimed that in today's consumer society, workers consider the so-called esthetical criteria of working to be more important than the ethical criteria, i.e. a job is primarily valued on the basis of the variety and self-realisation opportunities it offers.

We have tried to discover how the nature of work has changed in Estonia during recent decades by looking at the data collected by the sociologists of the Tallinn University Institute of International and Social Studies in the course of the population survey *Töö, kodu ja vaba aeg* (*Work, home and leisure*) conducted in 1993–2008 (for more information on the surveys, see Hansson 2009).

The meaning of work

2008. The results of the population survey conducted at the end of 2008 showed that although work is still the main source of income for most people in Estonia, four out of ten employed people also considered work to be an important opportunity for self-realisation.

Table 4.11.1. Changes in the nature of work, 1993–2008, (percentage of respondents who answered "yes")

My job ...	1993	1998	2003	2008
requires me to make decisions and assume responsibility	70	75	78	81
is interesting and full of variety	61	60	65	67
is fast-paced and stressful	51	61	63	67
is respectable	24	31	35	38
is well paid	9	11	14	21
allows me to decide how I want to organise my work	62	43	34	38

Source: Population surveys 1993- 2008, IISS at TU

Differences between the opinions of men and women were small and stereotypical claims to the effect that women are less work-oriented than men did not hold true in this regard. Of all respondents, 45% said that work tended to take up some of their free time. However, less than a quarter of all respondents – 29% of men and 16% of women – agreed with the statement that work is more important than family and may push the latter into the background.

The nature of work

At the end of 2008, two thirds of all respondents considered their jobs to be varied and interesting, but also fast-paced and stressful. More than a third of the respondents believed that their work was respectable and a fifth believed their jobs to be well paid. If we compare the 2008 results with those of earlier surveys (see Table 4.11.1), it appears that many positive changes have occurred in the nature of work between 1993 and 2008. On the one hand, there was an increase in the percentage of employed people who considered their work to be interesting and full of variety, well-paid, and respectable. On the other hand, the percentage of people who felt that their work was fast-paced and stressful and required them to make decisions and assume responsibility also grew. Meanwhile, there was a significant decrease in the percentage of employed people who had an opportunity to decide how best to perform or organise their work.

Several theoretical models have been used to evaluate the nature of work in general, two of which have proven to be most popular. The *demand-control model* is based on two aspects connected to work: (1) work-related demands and the intensity of work, and (2) the opportunity of the employed individual to have a say in the organisation of their work (for more, see Karasek, Theorell 1990; Theorell 2006). Four types of work are differentiated on the basis of the above-mentioned model: active, passive, high strain and low strain work (see Figure 4.11.1).

Active work is fast-paced and intensive, but allows people to make many of the organisational decisions regarding the best ways of handling their work. Passive

work is not very fast-paced, but usually involves someone else giving the assignments and determining how they will be accomplished. High strain work is fast-paced, intensive, and the people engaged in high strain work only have a limited say in its organisational aspect. Low strain work is not very demanding with regard to the pace of work, and people are often free to decide when and how they should perform their assignments to achieve the best results.

The other prevalent model used for assessing the nature of work is the so-called *effort-reward imbalance model* which is similar to the previous model in terms of its structure, but proceeds from the principles of the exchange theory and the balance of work-related efforts and rewards (Siegrist et al. 2004).

In this context, rewards mean either earnings, career opportunities, or a work-related sense of security. An effort-reward imbalance occurs when people's work loads are heavy and they invest more in work than they receive rewards. Although the two models described above have a lot in common, there is one significant difference. While the demand-control model focuses more on the situation in a certain working environment, the effort-reward imbalance model takes a somewhat more general approach and focuses on the broader labour market situation.

It was possible to use both of the models to analyse the data of the population survey *Töö, kodu ja vaba aeg*. We will take a look at the changes that have occurred in the nature of work in Estonia over the past 15 years based on the models described above.

Model 1. Demand-control model

A comparison of the population survey data indicates that the shifts in the percentages of people engaged in active and passive work between 1993 and 2008 were minimal, while significant changes occurred in terms of high strain and low strain work.

While in 1993 one fifth of all employed people reported doing high strain work, i.e. work that is fast-paced and intensive and provides no opportunities for employees to have a say or make decisions regarding their work, by 2008 the share of people engaged in high strain work had more than doubled. At the end of 2008, 39% of all men and 47% of all women were engaged in high strain work. The percentage of people doing low strain work had decreased from 32% to 14%.

If we compare the perceptions related to the nature of work according to the level of education of the respondents of population surveys conducted in different years, it is notable that employed people with different levels of education offered similar descriptions of their work in 1993, while considerable differences manifested themselves between groups with different levels of education in 2008.

The changes that occurred between 1993 and 2008 revealed a similar tendency across all levels of education – there had been a significant decrease in the share of people engaged in low strain work, while the percentage of people who do high strain work had more than doubled.

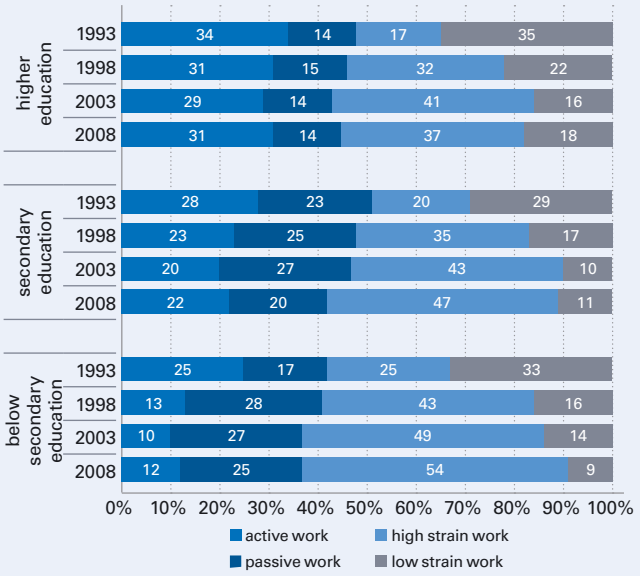
However, if we compare the changes in the percentage of people who did not have the opportunity to participate in the organisation of their work, i.e. those engaged in high strain and passive work, respondents with a lower level of education had been less successful during the period, since their ability to have a say in work-related matters had decreased far more than that of people with a higher level of education.

Figure 4.11.1. Demand-control model (model 1)

Does the employed individual have a say in the organisation of the work?	Is the work fast-paced and intensive?	
	YES	NO
YES	Active work	Low strain work
NO	High strain work	Passive work

Source: Population surveys 1993- 2008, IISS at TU

Figure 4.11.2. Changes in the nature of work by level of education, 1993–2008 (model 1)



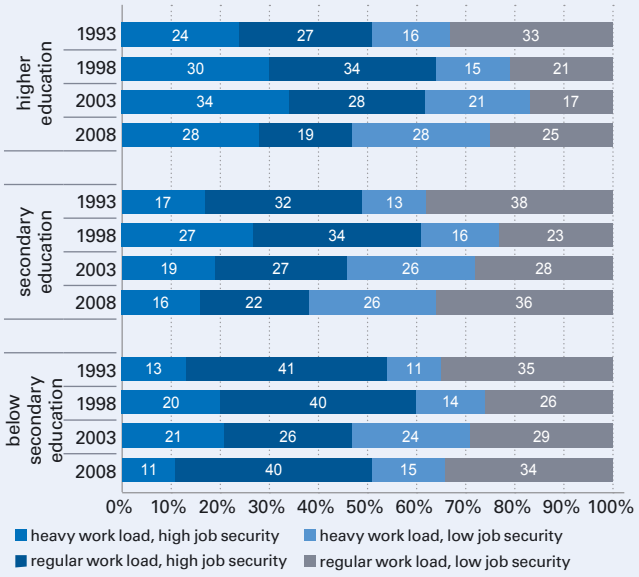
Source: Population surveys 1993- 2008, IISS at TU

Model 2. Effort-reward imbalance model

The data of the population surveys made it possible to construct the effort-reward imbalance model on the basis of two indicators: work load and job security. In 1993, only a quarter of people with a lower level of education and less than one third of people who had completed secondary education were confident that they would keep their jobs. People who had completed higher education were somewhat more confident regarding job security. Figure 4.11.3 shows that by 2003 the percentage of secure jobs with a standard work load had increased across all levels of education. Meanwhile, the relative importance of insecure jobs with a heavy work load had decreased.

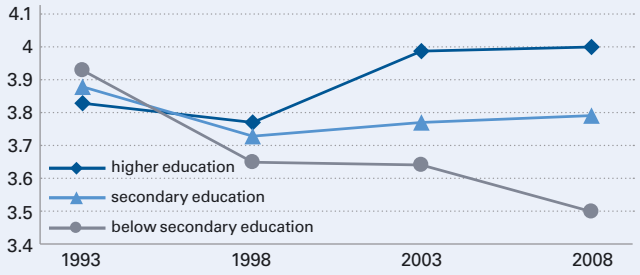
The increase in job security stopped in 2003–2008. While the assessments of people with secondary and higher education were comparatively similar in 2003 and 2008, there was a considerable increase in job-related insecurity between 2003 and 2008 among people who did not have a secondary education and had felt relatively secure

Figure 4.11.3. Changes in the nature of work by level of education, 1993–2008 (model 2)



Source: Population surveys 1993- 2008, IISS at TU

Figure 4.11.4. Work satisfaction by level of education, 1993–2008 (average indicators on a 5-point scale, 5 = completely satisfied ... 1 = not satisfied at all)



Source: Population surveys 1993- 2008, IISS at TU

in 2003. This was even true for those members of the latter group who had a heavy workload.

Thus, the *effort-reward imbalance model* allows us to conclude that the perceptions regarding work of people without a secondary education were in many ways similar in 1993 and at the end of 2008. On the other hand, there were positive changes in the perception of work among other education-based groups whose work load and job security balance increased.

Work satisfaction assessments

As demonstrated by the previous analysis, people with different levels of education had fairly similar opinions of their work in 1993. Figure 4.11.4 shows that people with different levels of education also expressed a relatively similar degree of satisfaction with their work in 1993.

According to survey results, the changes that occurred in work satisfaction over the past 15 years generally reflected the shifts in the perception of the nature of work. By 2008, a decrease in the work satisfaction of people with a lower level of education had become apparent. This was related to the significant rise in the percentage of people with less education who were doing high strain jobs that did not provide opportunities to participate in the organisation of work. The largest increase in work satisfaction occurred among people with higher education. This group included more people who did not have to worry about keeping their job and were able to take part in handling the organisational aspect of their work.

An analysis of the connections between the nature of work and work satisfaction assessments revealed that job security and the opportunity to have a say in the organisation of work are more significant as factors that shape work satisfaction than, for example, the intensity of work or the size of the work load.

Conclusion

The analysis of the data collected in the course of the *Töö, kodu ja vaba aeg* population surveys revealed that many significant changes had taken place in the nature of work between 1993 and 2008. Firstly, the percentage of employees who were able to participate in the organisation of their work decreased among people with fast-paced, intensive jobs. Secondly, the general rising trend that characterised job security until the survey conducted in 2003 had come to a standstill by the end of 2008. The signs of the economic crisis were probably apparent by then.

Changes in the nature of work of people with different levels of education point towards increasing polarisation. The subjective perceptions of people with higher education regarding the nature of their jobs changed for the better. Furthermore, by 2008 there had been an increase in the share of people with higher education who were able to take part in organising their work as well as those who did not feel worried about the future of their jobs.

On the other hand, a decrease in job autonomy as well as in job security existed among people without secondary education. In addition to similar perceptions regarding the nature of their work, people with different levels of education also exhibited similar satisfaction with their work in 1993. By 2008, however, the differences between the satisfaction levels of the education-based groups had increased considerably. Earlier studies have demonstrated that job autonomy and job security have a significant positive effect on people's level of satisfaction. Since the opportunities of people with higher education to have a say in the organisational aspect of their work had increased and their job security had grown, the increase in their satisfaction does not come as a surprise. Among people without secondary education, the percentage of employees who did not have job autonomy had increased and people's job security had dropped. This resulted in a decrease in people's level of satisfaction with their work.

Population surveys reflect people's subjective perceptions and it must be kept in mind when interpreting their results that the last population survey belonging to the above-mentioned series was conducted in the autumn of 2008, during a time when the severity of the global financial and economic crisis and its effect on Estonia's economy had not yet been revealed in detail.

References

1. Bauman, Z. (1998). Work, Consumerism and the New Poor. Buckingham: Open University Press
2. Hansson, L. (ed.) (2009). Töö, kodu ja vaba aeg: argielu Eestis aastatel 1985–2008. Tallinn: Tallinn University Institute of International and Social Studies
3. Karasek R, Theorell T. (1990). Healthy Work: Stress, Productivity and the Reconstruction of Working Life. Basic Books, Inc., New York, NY
4. Siegrest, J., Starke, D., Chandola, T., Godin, I., Marmot, M., Niedhammer, I., Peter, R. (2004). The measurement of effort-reward imbalance at work: European comparisons. Social Sciences & Medicine, 58, pp. 1483–1499
5. Theorell, T. (2006). New directions for psychosocial work environment research. Scandinavian Journal of Public Health, 34:, pp. 113–115

4.12. Summary

According to the typology of welfare states proposed by theorist Esping-Andersen, Estonia, like the United States, the United Kingdom, Ireland, belongs to the category of liberal countries, where the source of welfare is competitive success in the market. The liberal market economy has been the basis of Estonia's economic policy since the restoration of independence and has brought success to the country.

According to Statistics Estonia, our cumulative GDP growth per capita was 70.4% in 2000–2008. The indicator grew steadily until 2007, the peak year in terms of economic growth, and began falling in 2008. Expressed financially, the GDP increased from 70,000 EEK in 2000 to 188,000 EEK in 2008. There is a simple conclusion to be drawn: on average, Estonia's population has grown considerably wealthier.

Unfortunately, this success has had its social repercussions. The general increase in the standard of living did not prevent the occurrence of many of the basic trends of social development: deep social stratification, also among occupational categories, an increase in economic inequality, including income differences, which amount to considerable differences in the standard of living of different social groups.

Simultaneously with the general growth of average income, there has been an increase in the wage gaps between occupational categories. The average net income of managers grew at the fastest rate, while income increase was slower in the case of elementary occupations, service and sales workers, and agricultural workers. However, in 2008 and 2009, wage growth stopped for almost all occupational categories, excluding professionals, while some categories experienced a drop in wages.

Objective stratification is also confirmed by people's subjective assessments of their status. Most people believe that they belong to the middle or lower positions of the social hierarchy and these tendencies did not change even during the economically successful years.

According to liberal theory, structural changes in society should be accompanied by the increase of (both intergenerational and intragenerational) social mobility. The expansion of education should reduce the effect of social background on education as well as people's subsequent social position. In particular, the role of education in reaching a social position should grow, since social selection should be increasingly based on acquired skills and qualifications. Unfortunately, the data for Estonia indicates that the expansion of education that occurred at the beginning of the 1990s did not bring about an equalisation of educational opportunities. In actuality, the influence of social background on education, and thereby social position, grew. As a result, each men's birth cohort has proven to be less mobile than the previous one. While three quarters of elderly men changed their social position compared to their parents, only slightly more than half of middle-aged men did so. Among the youngest age group, just half of the men changed their social position. Increased social mobility generates greater openness in society and, conversely, the influence of social background on social status increases simultaneously with the closeness (corporatism) of society.

The drop in Estonia's social mobility indicates that the characteristics of a corporatist welfare state have started emerging in Estonia in addition to the typical features of a liberal welfare country. This means that we are moving towards an increasingly closed society where an individual's social position depends more on social background than acquired education. The most important problem related to the economic crisis is managing the situation in the labour market, the availability of jobs to individuals and the low risk of unemployment. Managers and professionals are the occupational categories most likely to be safe in this regard, while the risk of unemployment for craft and related trades workers rose sharply in 2009, even exceeding the risk level for elementary occupations.

However, if we look at the situation in terms of age groups and gender, it is young people and women who are in the most complicated position. This state of affairs remained unchanged throughout the recent economically successful years.

Thus, the further career opportunities of mothers on parental leave are still limited, while the labour market still fails to offer flexible options for combining work and family life. This results, for example, in young mothers having few opportunities for part-time work.

Of all age groups, young people have the highest rate of unemployment (although their unemployment rate also depends on their level of education). The sudden expansion of higher education seen in Estonia during the 1990s caused impractical developments in the labour market – a gap has emerged between people's level of education and the work they do, and people with a lower level of education have been pushed out of the labour market.

The situation that is straining the labour market can, to a certain extent, be mitigated through the targeted development of continuing education and retraining. Although more and more people participate in lifelong learning in Estonia on a yearly basis and a growing number of peo-

ple feel the need to do so, there still exist shortcomings in the system. For example, more managers and professionals than workers participate in training.

The adult education policy that has been in place in Estonia has generally favoured people who are engaged in the labour market. Although the provision of training opportunities for the unemployed has also been prioritised, the demand remains many times greater than the supply among this group. On a monthly basis, only approximately one in every twenty unemployed people was able to participate in training in 2008. Consequently, one of the high-priority issues of labour policy should be a reduction in the youth unemployment rate through the efficient use of EU structural funds allocated to Estonia in 2010.

In order to maintain sustainable development, it is equally important to prevent any further movement of Estonian society towards greater corporatism and to implement a more purposeful labour policy in order to ensure that our human assets are used efficiently.

Annex

Annex 4.1. The perceived social position (on average) of various segments of the population in 1992, 1996 and 2004

	1992	1996	2004
Gender			
Men	5.0	4.5	4.7
Women	4.8	4.5	4.7
Age group			
30 and younger	5.0	5.2	5.3
31–45	5.1	4.4	4.9
46–60	4.7	4.3	4.6
Over 60	4.4	3.8	4.0
Level of education			
Basic education or lower	4.3	3.8	4.1
Vocational education	4.8	4.3	4.5
General secondary education	4.9	4.8	4.7
Higher education	5.4	5.3	5.4
Labour market position			
Employed	5.0	4.8	5.0
Staying at home	5.2	5.0	4.9
Unemployed	4.5	3.5	3.7
Retired	4.2	3.6	3.8
Student	5.4	5.6	5.4
Occupational category			
Elementary occupations	4.5	–	4.2
Craft workers	4.7	–	4.8
Service workers	4.8	–	4.8
Associate professionals, general office clerks	4.9	–	5.2
Managers, professionals	5.6	–	6.0
Income quintile			
1st quintile (lowest)	4.2	3.6	3.9
2nd quintile	4.8	4.0	4.1
3rd quintile	4.7	4.4	4.3
4th quintile	5.2	4.8	5.0
5th quintile (highest)	5.3	5.8	5.8

Source: authors' calculations based on the International Social Justice Project (1992, 1996) and the Social Justice Study (2004)

GHAPTER 5

Cultural environment

5.1. Introduction

We define the cultural environment as a set of cultural phenomena and processes as well as thought patterns, which are collectively created and shared by a society, in this case, by the Estonian population. The cultural environment is closely related to the other environments being examined in this report – knowledge, understandings, beliefs, values and ideologies shared by the members of society influence directly and extensively population processes and health-related behaviour, endeavours to preserve or reshape the natural environment, economic development and regional politics, as well as social processes and the social environment.

A considerable portion of the cultural environment involves culture in the broadest sense. In the case of Estonian society, there is still reason to speak about a "transition culture" – a fragmented, mosaic cultural space that has developed in the course of great socio-economic changes, and in which the values, norms, narratives and other cultural elements characteristic of the "old" society exist side-by-side with "new" trends (Alexander et al. 2004). Describing and measuring the transitional processes of culture are quite complicated. Values are one of the most reliable and most commonly used types of cultural indicators. Most generally, we can define values as people's concept of the desirable (ideal), but on which people do not necessarily base their daily activities (Kroeber, Kluckhohn 1952; Rokeach 1973). Values are rather the basis for the creation of norms and ideologies and the formation of policies. On the other hand, those who study values have shown (e.g. Inglehart 1990) that values and their modification reflect people's reactions to changes in the environment. In poorer societies, survival or deficiency values, such as wealth, are at the forefront. As the economic situation of the society improves, the importance of such values decreases and post-materialist values, i.e. those related to self-expression and human relations, such as friends, exciting life, clean environment etc., come to the forefront.

In this chapter, values are the supportive axis. In the second sub-chapter we will examine the values of the Estonian population in 1990-2008, based on data from three international surveys (World Values Survey 1990; European Values Study 1999 and 2008). The sub-chapter focuses primarily on the main spheres of life and institutions (for instance, the family, work, friends/acquaintances) and the values and attitudes related thereto; trust and tolerance will also be examined as measurements of the cultural environment. We continue the analysis of values in the third sub-chapter, based on the data from the survey of the Estonian population entitled *Me. The World. The Media* (2008) and the European Social Survey (2008). The fifth sub-chapter examines the values of Estonian schoolchildren in comparison to their peers in Finland and Russia. The values created by young people on the Internet will be treated briefly in the sixth sub-chapter.

An important part of the cultural environment is also culture in the narrower sense – artistic creation (literature, art, music, theatre, film, etc.), along with its consumption and reception. In the fourth sub-chapter, we examine the differences in the culture consumption of the Estonian population compared to other European countries (based on the data of Eurobarometer 278, 2007), the gender differences in participation in the cultural sphere, as well as types of culture consumption (based on the data from *Me. The World. The Media*).

The development and reproduction of the cultural environment takes place primarily through certain institutions and groups, or agents of socialisation, which include the family, church, media, school and peers. In this chapter we will deal with them all briefly, examining the latter two in more detail. In the fifth sub-chapter we turn our attention to the role of schools in value education, focusing on the challenges facing Estonian schools in the transition from knowledge-based to value-based schools. Through time, peer culture has allowed young people to create a part of the cultural environment, by employing new ways of thinking and cultural practices, as well as by reproducing, adapting and changing the existing ones. While previously research on peer culture was difficult because what took place in playgrounds, in courtyards, on the street or in shopping centres was not very accessible to or observable by social scientists, today a large part of peer culture is stored by young people in the content created in new media environments. The sixth sub-chapter examines this new media, primarily the Internet, as the place where peer culture is revealed and as a part of the cultural environment of the new generation.

References

1. Alexander, J. C., Eyerman, R., Giesen, B., Smelser, N. J., Sztompka, P. (eds.) (2004). Cultural Trauma and Collective Identity. Berkeley, CA: University of California Press
2. Inglehart, R. (1990). Culture Shift in Advanced Industrial Society. Princeton, NJ: Princeton University Press
3. Kroeber, A. L., Kluckhohn, C. (1952). Culture: A Critical Review of Concepts and Definitions. Cambridge, Mass: The Museum
4. Rokeach, M. (1973). The Nature of Human Values. New York: Free Press

5.2. Changes in Estonia's value system in 1990–2008

Introduction

During the last decade, sociologists have launched numerous research programmes in the world that examine the problem of changing values. Values form the standards based on which people live. Values are also a component in the evaluation of the quality of life. The size of the GDP per capita has been one of the measurements used to assess the level of prosperity in various countries. Recently, scientists have increasingly expressed the desire to find a better measurement of people's wellbeing. To achieve this, data on both the GDP and the level of cultural values must be combined, which could be expressed as an index of wellbeing.

When analysing values, it is also important that they can be compared by country as well as by time period because this allows the value orientations of one country or region to be compared to the values of other countries or regions. The extremely rapid development of globalisation processes has created a need to examine value orientations, in order to find common and different trends for change in the various areas of the world. Currently, several global and regional research projects on value orientations are being carried out. The value of such projects stems from the fact that they are characterised by repetitiveness, which allows the problems being studied to be monitored over a longer period of time. The analysis of value orientations trends also has a prognostic value since it enables certain developments to be foreseen.

The European Values Study (EVS), which initiated the global study of values, was launched in 1981 (initiated by Jan Kerkhofs and Ruud de Moor). The first study was organised in 14 European countries. On the initiative of Ronald Inglehart, the list of countries under examination was expanded to include countries outside Europe, which increased the number of countries to 22.

In addition to the given projects, values are studied in the following international projects: Global Barometer Surveys[23] (the populations of 70 countries are studied, outside of Europe), Afrobarometer[24] (20 countries participated in the last study), the European Social Survey (ESS)[25], which has studied populations in the European countries every two years starting in 2002, and the ISSP[26] (annual studies with 46 countries participating). In this context, one could also add the Eurobarometer studies[27], in the course of which the citizens of all European Union member states and candidate states are asked their opinions on topical issues and values.

Under Ronald Inglehart's direction, the World Values Survey (WVS)[28] was launched, which includes five survey waves. The European Values Study has been organised four times – in addition to 1981, also in 1990, 1999 and 2008. Estonian sociologists have participated in both values study projects. In 1990 Saar Poll participated (under the direction of Prof. Mikk Titma) in the World Values Survey, and Saar Poll has participated in two waves of the European Values Study – in 1999 and 2008. Since the questions posed in both study projects coincide to a great extent, we can examine the changes in the values of the Estonian population through three measurement points, starting in 1990.

The results of the World Values Survey have provided substance for three important conclusions, which have also been an important subject for discussion outside the academic world. The first is the factors that affect people's rate of happiness. The second is the well-known "Inglehart-Welzel Map" (see Figure 5.2.1), where the most values are assembled on two cultural axes: traditional versus secular-rational values and survival versus self-expression values.

Estonia is in the same zone on the world values map as all the other former Communist countries, where secular-rational values are considered important and self-expression values are less important than survival values. The Nordic and Benelux countries are also at the forefront of countries with an orientation toward rational values, where religion plays a relatively small role, but their populations are characterised by a very strong preference for self-expression values, unlike Estonia (Inglehart, Welzel 2005).

Studies during the recent years (1995–2008) have shown that, on the one hand, thanks to an improved economic situation, the Estonian population is clearly moving from survival values to self-expression values. This means that the number of people in the society for whom values related to economic and physical security are of primary importance is decreasing (since these values have already been achieved), and therefore subjective wellbeing, opportunities for self-expression and the quality of life are becoming more important for them. This analysis of the value orientations trends among the Estonian population shows the strengthening of this development.

The third very important conclusion of the World Values Survey is the realisation that such cultural values as trust and democracy as well as gender equality regionally differentiate people's way of thinking around the world. The frequency of the occurrence of these values allows one to assess the society from the aspect of what developmental stage it has achieved on the path to democracy.

The values study, which was organised in 1990, take us back to the last year of the Estonian Soviet Socialist Republic, while the 1999 and 2008 studies were conducted

[23] www.globalbarometer.net

[24] www.afrobarometer.org

[25] www.europeansocialsurvey.org

[26] www.issp.org

[27] ec.europa.eu/public_opinion/index_en.htm

[28] www.worldvaluessurvey.org/services/main.html

in an already re-independent Estonia. The year 1999 is characterised by traces of the recent economic crisis. In 2008, the survey was conducted at a time when people were already starting to perceive a new large economic crisis, although an overview of its seriousness was still lacking. During the first two survey waves, Saar Poll surveyed 1000 people aged 15 to 74; during the last wave 1500 people were surveyed.

To provide a wider context for the research results, we will compare the results of the Estonian survey with data from other countries. Unfortunately we can only do so for the 1999 results, since the more recent data about the other countries is not yet available. We will make comparisons primarily with the populations of the Baltic countries and the Netherlands. We have chosen the Netherlands because it is a post-materialist country with long democratic traditions and it is also a small country, the development trends of which could serve as an example for Estonia in the long term.

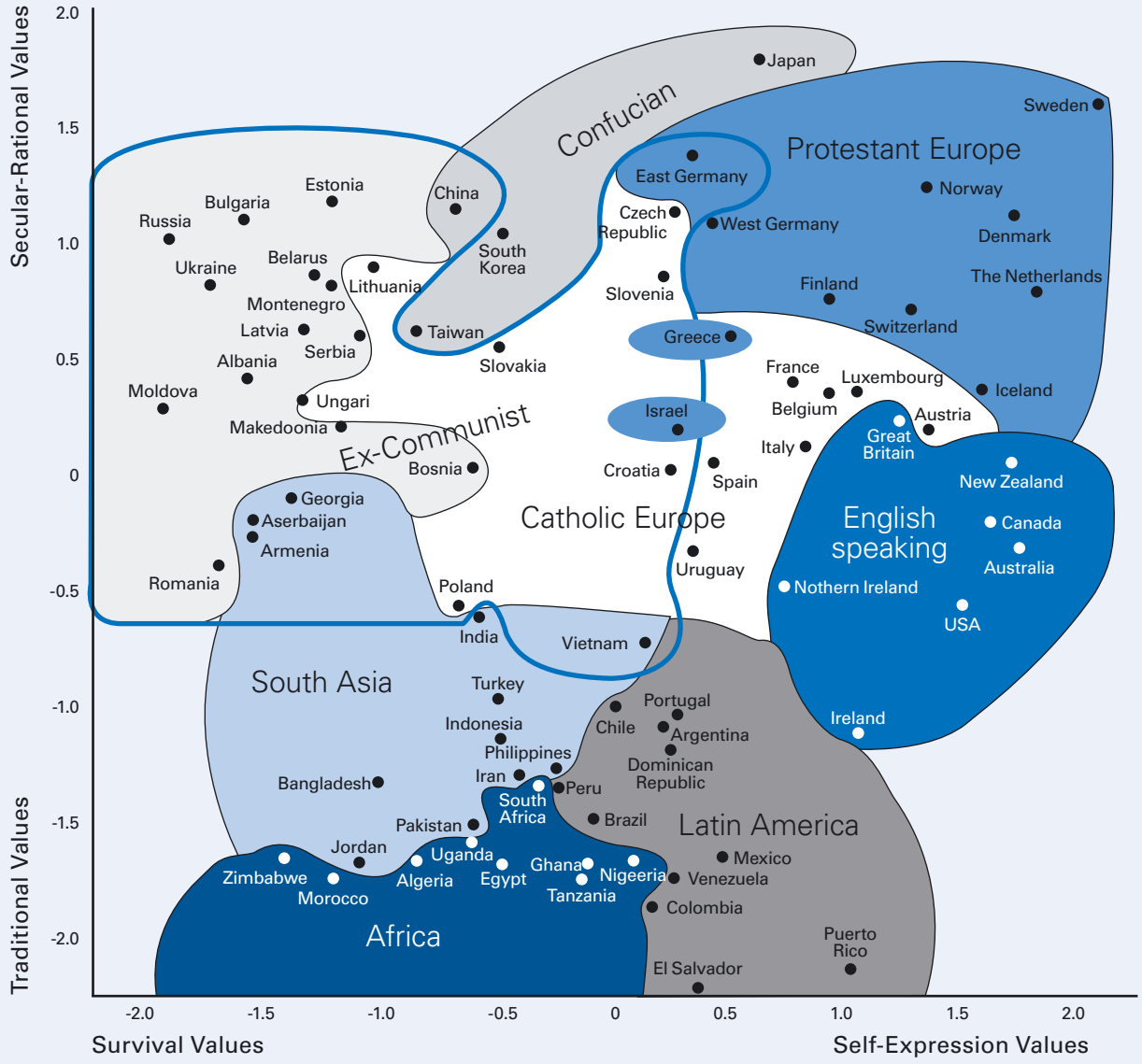
Assessments in the major spheres of life

Firstly, we will examine how people assess the most important fields of activities that they come in contact with daily (see Figure 5.2.2).

The family, which is a broader concept than just marriage, continues to be most important for people in Estonia. The number of people who consider marriage to be an outdated institution increased from 10% to 18% during the last 18 years. This is confirmed by the increasing percentage of unregistered familial couples in Estonia.

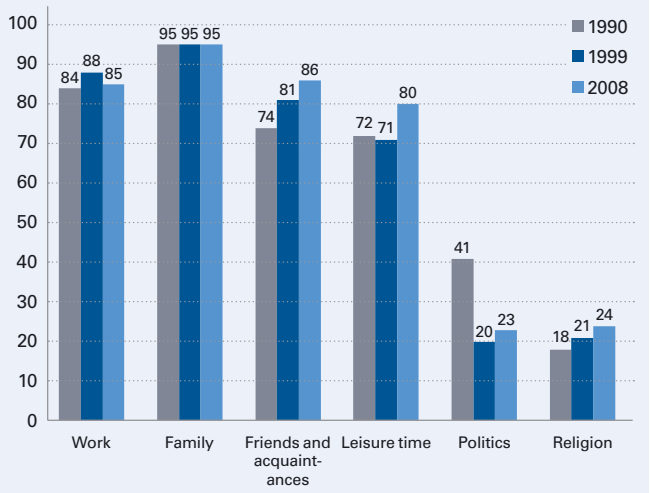
The demands placed on marriage (cohabitation) have changed significantly during the last 20 years. A significantly greater number of people expect more conditions to be fulfilled to have a happy marriage than did the previous generation (see Figure 5.2.3).

Figure 5.2.1. Inglehart-Welzel (2005) Cultural Map of the World. The countries are positioned at the point of the intersection of two axes based on the means of the factors related to the populations' value preferences. The Estonian population's values are characterised by great rationality and the importance of survival values.



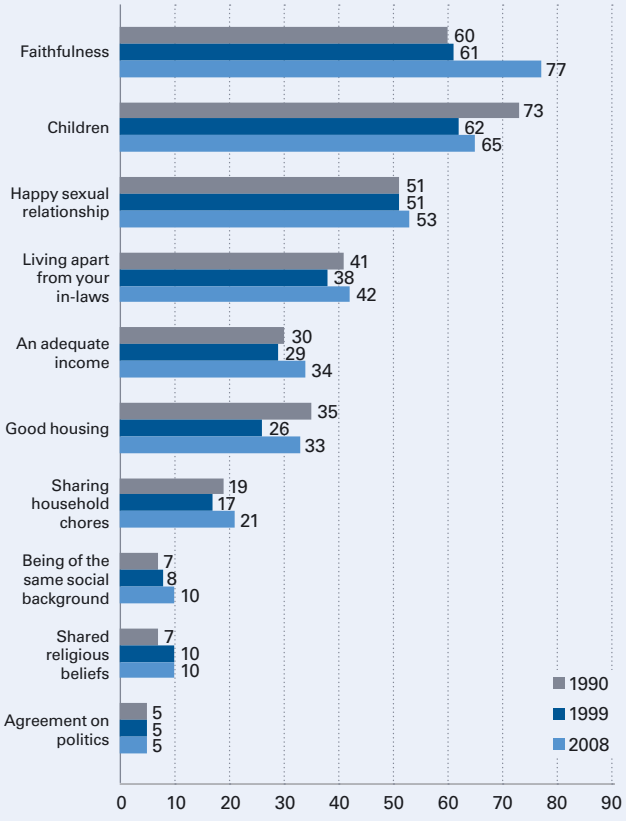
Source: Inglehart, Welzel 2005: 64

Figure 5.2.2. The change in the assessment of the importance of various spheres of activity among the Estonian population (% of respondents for whom the given sphere of activity is "very important" or "quite important")



Source: World Values Survey 1990; European Values Study 1999, 2008

Figure 5.2.3. The change in the assessment of the importance of the factors affecting marital happiness among the Estonian population (% of respondents for whom the given factor is "very important" or "rather important")



Source: World Values Survey 1990; European Values Study 1999, 2008

Economic expectations have also changed, as have emotional ones. Having children continues to be an important factor in determining the happiness of familial life, although when economic conditions changed, the importance of this factor became secondary. This is also associated with very clear changes in gender roles. During the last 20 years, the percentage of people who do not believe that the self-realisation of women is tied exclusively to children and the home has significantly increased. For instance, in 1990, 84% of the Estonian population believed that women need to have children to achieve self-realisation; by 2008, those who held this belief had decreased to 70%. Women's freedom and independence is also increasingly valued. While in 1990, 51% of the population thought that having a job was the best way for a woman to be independent, 18 years later already 79% of the population shared this opinion. In this context, the reduced valuation of children's needs has occurred. For instance, in 1990, 89% of the population believed that pre-school children will probably suffer if their mothers work, currently only 56% share this position. The number of people who believe that in order to grow up happy a child needs a home with a mother and a father is also decreasing.

Familial roles are increasingly based on the principle of equal contributions. This applies to attitudes towards doing housework as well as financial aspects. While in 1990, 77% of the population believed that both husband and wife must contribute to the family income, currently, the percentage has increased to 86%.

The importance of *work* (see Figure 5.2.2) has not increased for the Estonian population during the last two decades. As a rule, during an economic crisis work usually becomes more important, which is also demonstrated by the results from 1999. If a similar survey were to be organised today, we would probably see a significant increase in the relative importance of work.

Compared to 1990, the expectations people place on work have fundamentally changed (see Figure 5.2.4) – they are now noticeably more demanding. People expect to receive excellent compensation for their work, but they also expect to have interesting and developing jobs that correspond to their abilities and allow them to demonstrate initiative and be responsible for their jobs. Studies also indicate that the Estonian society is getting somewhat tired of working very hard, and therefore the percentage of people who find that work should not involve too much pressure has increased dramatically; good working hours have also become an important criterion for choosing a job.

On the one hand, the number of people who wish greater responsibility and independence has increased, while at the same time, a contradictory trend has also become evident. The respondents were asked how one should react to a superior's job-related instructions if one does not fully agree with them. The number of people who believe that one should follow the superior's instructions has doubled since 1990 – in 1990, 12% of the population supported this position; in 2008, already 24% did. This may be an indication that for some workers company management has become more authoritarian, and initiative is not appreciated. In this situation, some people believe that preserving one's job is more important than risking possible conflict.

While the importance of the family and work has not changed for people since 1990, serious developments have occurred in all other spheres. Since the Estonian society has become wealthier during the years since independence was restored, people have started to increasingly value *relations with friends/acquaintances* and *leisure time* (see Figure 5.2.2). While in Estonia and the other post-Communist countries the greatest value is placed on the family and work, in the post-materialist countries those fields of activity that allow a person to develop as an individual outside the family and work are valued more highly. For instance, based on the data from the 1999 survey, the residents of the Netherlands placed one's family and work in third or fourth place (Saar 2001). The values of the Estonian population are moving in this direction – leisure time and friends/acquaintances are becoming just as important as one's family and work. The more components there are in a person's life, the richer the person's life is.

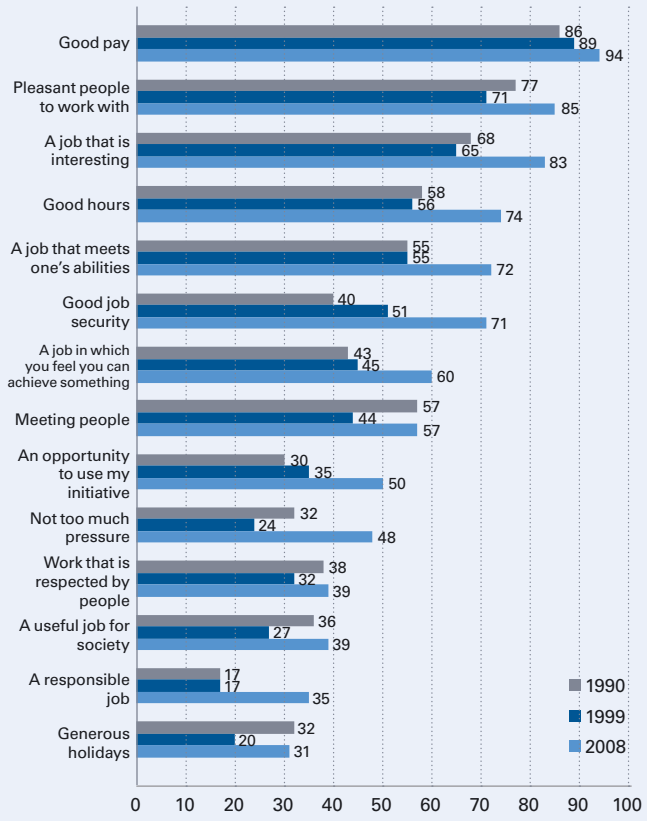
The Estonian population has started to consider *politics* as an increasingly unimportant field of activity. This development is somewhat natural – in 1990 politics was a very hot topic since the transition to the restoration of an independent Estonia was taking place. The ordinary political life of the subsequent period no longer provides the hot topics that were instrumental in making political life so important. The alienation of politicians from the population also plays an important role in the development of this trend. In addition to the fact that the political sphere has become less important for people in Estonia, they also speak about politics less often than before. While in 1990, 42% of the Estonian population often discussed political questions with their friends, only 12% said they did so in 2008. Similar trends are occurring in Latvia and Lithuania.

At the same time, in the last survey, 53% of the population in the Netherlands (20% in Estonia) considered politics to be important. This indicates that the Dutch population is more involved in society's decision-making processes.

The engagement with community life is measured by people's membership in non-governmental organisations. During the last 20 years, several important changes have taken place. In re-independent Estonia, the number of people who do not belong to any organisations increased significantly (by 2.5 times – from 28% to 69%). However, survey data now show a reduction in the number of such passive people – today they total 60%. The transition from one political order to another has also caused changes in social structures, and in this context, the majority of the Estonian population was not able to identify itself with new organisations. At the same time, financial opportunities for this were often lacking. The situation is slowly starting to improve, although it is still far from normal. Similar trends are also occurring among our southern and eastern neighbours.

In West European countries, people are connected with non-governmental organisations to a much greater degree than in the post-Communist countries. In Western societies, there are noticeably fewer people who do not belong to any organisations, and the memberships of organisations are also much larger. For instance, in the Netherlands 50% of the population belonged to sports or leisure organisations (1999 data), while the corresponding

Figure 5.2.4. The change in factors related to job satisfaction among the Estonian population (% of respondents for whom the given factor is "very important")



Source: World Values Survey 1990; European Values Study 1999, 2008

figure in Estonia was 14% (2008); 46% of the population in the Netherlands participated in organised cultural activities; in Estonia only 12%. Community activism is several times higher in the Netherlands than in Estonia.

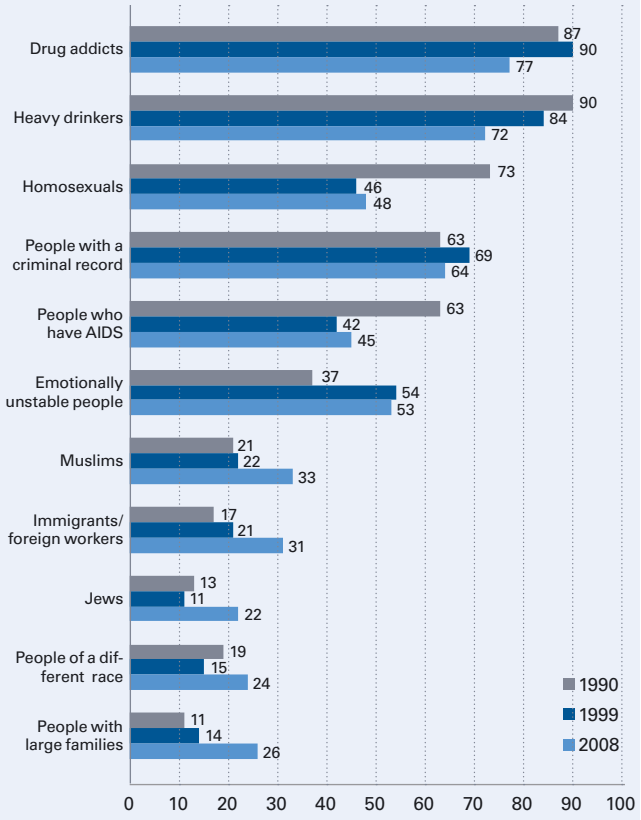
Membership in organisations is closely tied to the parameters characterising civil society, and indicate what opportunities people have to participate in community life and their ability to affect community life through their organisations.

The importance of *religion* for people in Estonia has slowly increased during the last 19 years (see Figure 5.2.2). The number of people who consider themselves religious has increased 2.2 times. In 2008, they comprised 42% of the population. However, in West European countries, the importance of religion is decreasing. The fact that we have started to slowly place greater importance on religion is apparently based on the deep imprint left by the nearly 50-year Soviet occupation. Probably after a couple of decades, Estonia will start to follow in the footsteps of the other European countries in regard to the question of religion. Currently, Estonia is experiencing a period of the growing importance of religion, which should continue until these values have achieved an "adequate" position. Similar trends are also evident among our southern and eastern neighbours.

Tolerance

Trust and tolerance are indicators that can be used to find out the level of openness or closeness of a society. The

Figure 5.2.5. Changes in tolerance toward various "other" groups in one's neighbourhood among the Estonian population (% of respondents who said that they do not like to have such neighbours)



Source: World Values Survey 1990; European Values Study 1999, 2008

question of who people do not like to have as their neighbours has become a typical measure of tolerance (see Figure 5.2.5).

During the last decades, several fundamental changes have taken place in the attitudes toward "other" categories of human beings, i.e. people that can be differentiated based on some traits. People in Estonia have started to relate to risk groups or groups that deviate from "normality" with noticeably greater tolerance. This includes drug addicts, heavy drinkers, homosexuals, and people who have AIDS. Perhaps the change in attitude has been fostered, on the one hand, by increasingly dispersed settlement, which means that one may have fewer contacts with "those who are different", and also by media representations that have increased the ability to understand "those who are different".

The attitude towards people with a criminal record has practically not changed at all. Intolerance has increased most noticeably regarding groups that might cause social disturbance: emotionally unstable persons and people with large families.

In the period between the three surveys, there has been a sharp increase in repelling attitudes towards people that can be differentiated on the basis of nationality or colour, such as Muslims, immigrants/foreign workers, people of a different race. During the last 10 years, there has been a discernible increase in the negative attitude towards Jews. Probably one of the reasons for an increase in the negative attitude towards the given groups is connected to media representations. During the past few years, in the opinion of many people, there has been too much discussion on topics related to the Holocaust, which has increased repelling attitudes instead of understanding.

In connection with the events of September 11th, the topic of Muslims entered the field of vision. In Estonia, the removal of the Bronze Soldier, together with the accompanying events, has also played a role. This has reduced, rather than increased, the population's tolerance.

The hope that tolerance in the Estonian society will increase in connection with the greater openness of the society to the rest of the world was unfortunately not confirmed. Quite the opposite, intolerance towards "others" has increased, and the negative impact of globalisation processes can be perceived therein.

The tolerance or intolerance towards "others" that exist in a society is influenced by many factors – history, general value orientations, the social, economic and political situation in the society, etc. Generally, the level of hostility directed towards "others" is related to the level of solidarity in the group (in the society). Culturally heterogeneous societies are generally more tolerant of "others" than homogeneous societies. A good indicator of this connection is the significantly greater tolerance of the Dutch population regarding "those who are different".

The ideology of the Soviet period cultivated distrust towards the countries outside the Soviet Union and indirectly towards their people. This attitude is characteristic of all the East European countries that were in the grip of Soviet power. The restoration of independence of these countries increased tolerance in many aspects of these societies, but they still differ to a very great degree from West European countries, which have long democratic traditions. Based on the Estonian example, one could say that the growth of tolerance has stopped half way. Tolerance has increased towards "one's own" who have some problems, but the attitude towards strangers (foreigners) has become increasingly repelling. Currently, this has yet to become a serious issue, but if developments continue in the same direction, a repelling socio-psychological mentality could cause a great deal of unpleasantness. One day this could turn out to be both an economic and political problem.

Trust

Although the tolerance of the Estonian population has developed in two opposite directions during the last decades, generally, trust in other people has consistently increased since 1990. Trust is measured by the question "Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?" Currently, 32% of the people in Estonia say that most people can be trusted. Only 10 years ago this percentage was only 23%. Similar processes have occurred in the Central and East European countries.

Among our northern neighbours, as in the majority of West European countries, trust in other people is noticeably higher as a rule. As the data from various countries demonstrate, great trust in other people may not automatically be accompanied by an increase in tolerance. Under certain conditions these phenomena may be indicative of the opposite trend.

In Estonia, trust in state institutions has generally increased (see Figure 5.2.6). A loss of trust has only occurred in regard to three institutions – parliament, the press and the church. The trust in all other institutions has increased to a large extent without exception. This means that people have approved the activities of these institutions. The high level of trust allows one to conclude that the population believes that the development of the state has been completed. A drop of tar in the honey pot is the fact that the population has the least trust in its parliament – only 28% of the Estonian population trusts this institution. However, the lowest assessment is reserved for political parties, which are trusted by only 19% of the population.

Which goals should Estonia focus on for the next 10 years? While in 1990 and 1999 the most important goal was maintaining order in the nation (in the opinion of 56% of respondents), the 2008 survey shows that the importance of this goal has decreased significantly – only 32% of people feel it is most important. Order in the country has become so self-evident that it is no longer a high priority.

Today, a much more important goal for people is the wish to be involved in important government decisions – 61% place this among the top two priorities. Of the top two priorities, the most important is the wish that the government fight rising prices (in the opinion of 68% of the population). The year 2008 was truly characterised by galloping price increases, and therefore, it is natural that people wish to combat them.

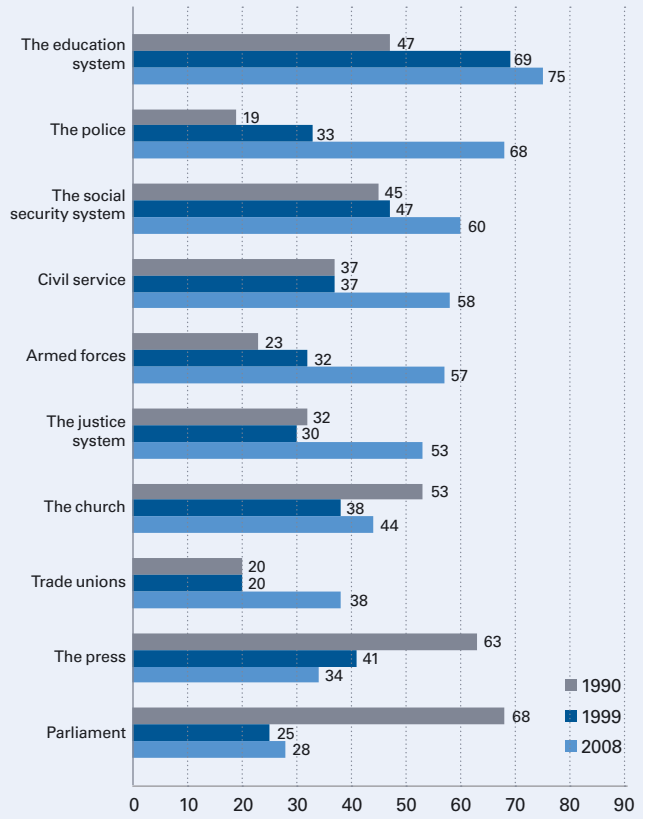
Satisfaction with life

In 2008, the people of Estonia were significantly more satisfied with their life than ever before. While in 1990, only 28% of people were satisfied with life, in 2008, this number had grown to 41%. It is the last decade that has brought a fundamental change in people's assessments. People's incomes increased noticeably during this time, and they had the opportunity to rapidly improve their living standards. The lowest satisfaction with life in Estonia was in 1999 after the economic crisis. At that time, 15% of people were dissatisfied with life. By 2008 their percentage had dropped to 11%.

Along with life satisfaction, one of the most important indicators of the quality of life is the happiness indicator, which sums up many aspects of wellbeing (see Figure 5.2.7). Since 1990, the Estonian population has become noticeably happier. The economic crisis that started in 2008 will surely alter the number of people who are happy or satisfied with life. Economic recovery will also be accompanied by a rise in the subjective indicator of people's wellbeing. However, this development has its limits, since economic success is correlated to indicators of people's happiness only to a certain degree. A further increase in satisfaction will take place when people's values that are not related to income are also satisfied. This is related to personal self-expression and self-development needs of people. The more the society is able to provide people with the opportunities to express themselves in these spheres, the happier the society will be. This is the road that can lead us closer to the quality of life experienced by the populations of the Nordic countries, which is not centred only on wealth.

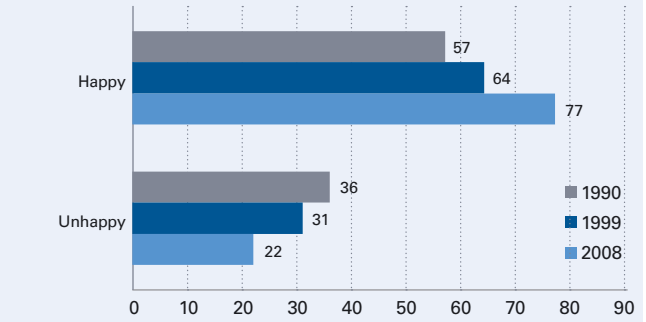
In summary, based on the three waves of World Values Survey and European Values Study, one can say that the Estonian example confirms the following general trends: with the increase in wellbeing, the valuation of social relations and leisure time increases; the general feeling of wellbeing and happiness rises; and people become more confident and eager to participate. Inglehart (1990) has called this trend a culture shift, a movement from materialist to post-materialist values. During the last few decades, Estonia has come closer to the Nordic countries, but it is still far behind in regard to the level of tolerance and the assessment of self-expression values.

Figure 5.2.6. Changes in trust assessments among the Estonian population (% of the respondents who answered "a great deal" or "quite a lot")



Source: World Values Survey 1990; European Values Study 1999, 2008

Figure 5.2.7. Increase in the percentage of people who feel happy among the Estonian population (% of respondents)



Source: World Values Survey 1990; European Values Study 1999, 2008

References

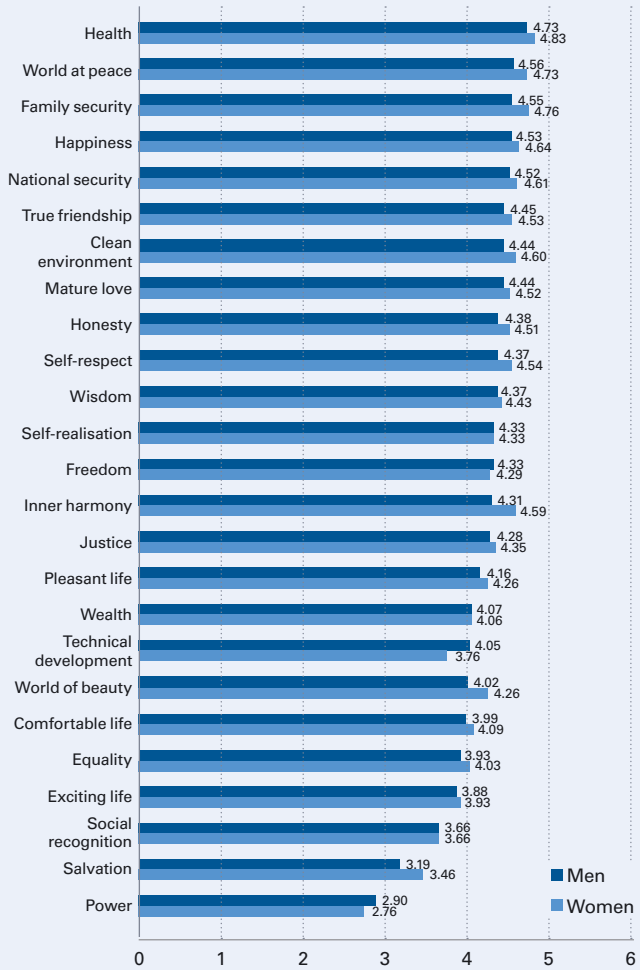
1. Inglehart, R. (1990). Culture Shift in Advanced Industrial Society. Princeton, NJ: Princeton University Press
2. Inglehart, R., Welzel, C. (2005). Modernization, Cultural Change and Democracy. New York: Cambridge University Press
3. Saar, A. (2001). Muutused väärtushinnangutes aastail 1990–1999. Research report. Manuscript

5.3. The value patterns of the Estonian population

Culture, in the broadest sense of the concept, is the most central element of any country, any people. Based on this view, all the processes taking place in society, including political and economic process, are cultural in nature. We can treat values as the most general, abstract indicators of culture and the cultural environment. In this subchapter we continue the examination of values of the Estonian population. As empirical data we are using the results from the *Me. The World. The Media* survey that was conducted by the Institute of Journalism and Communication at the University of Tartu in cooperation with the Faktum and Saar Poll research companies (survey waves in December 2002, November 2005 and September-October 2008, sample size 1470, 1475 and 1507 people respectively, aged 15–74). For the contextualisation and comparison of the cultural processes taking place in Estonia, we have also relied on data from the 2008 European Social Survey.

A large part of the comparative studies dealing with values has focused on differences between cultures, ethnic groups and/or generations, assuming by default that intra-cultural differences in the values of men and women are insignificant. Based on the previous research conducted in Estonia, which does not confirm this assumption, in this sub-chapter we pay special attention to the differences and similarities in the values of men and women in Estonia.

Figure 5.3.1. Mean values (1 – "not at all important" … 5 – "very important") among men and women



Source: Me. The World. The Media 2008

The values of men and women in 2002–2008

Unlike the previous sub-chapter, which primarily analysed values and attitudes related to the main spheres of life and institutions, in this sub-chapter we use 25 abstract value concepts (Rokeach 1973). The importance of the values was measured on a five-point scale (1 – "not at all important" … 5 – "very important"; the value indicators are shown in Figure 5.3.1).

Similarly to the results of the survey waves in 2002 and 2005 (Kalmus, Vihalemm 2004; Kalmus 2006), the 2008 data indicate greater value scepticism on the part of men. Compared to women, men assess very many values lower (18 of 25 values), and only appreciate those values that are stereotypically male significantly higher – *technical development* and *power* (see Figure 5.3.1). It deserves special mention that men give a significantly lower assessment to universal values that are directed at security and mental wellbeing, such as *health*, *clean environment* and *world at peace*, *national security*, *world of beauty*, *family security*, *inner harmony*, *self-respect*, *happiness* and *salvation*.

Value orientations or value clusters

The examination of value orientations or value clusters reveals even more pronounced gender differences. Based on the data from the 2008 survey and by using factor analysis, we can differentiate value factors, that is, clusters of individual values that are strongly correlated (for their composition, see Table 5.3.1). Figure 5.3.2 shows that values related to environment and security as well as those value orientations that express spiritual harmony and social orientation are significantly more important for

women. Men stand out for their technology- and power-centred set of values also in the comparison of value orientations. Therefore men's value sets are somewhat more one-sided and stressful – the ideals set up by men are more related to success and progress and less to personal harmony and a secure environment.

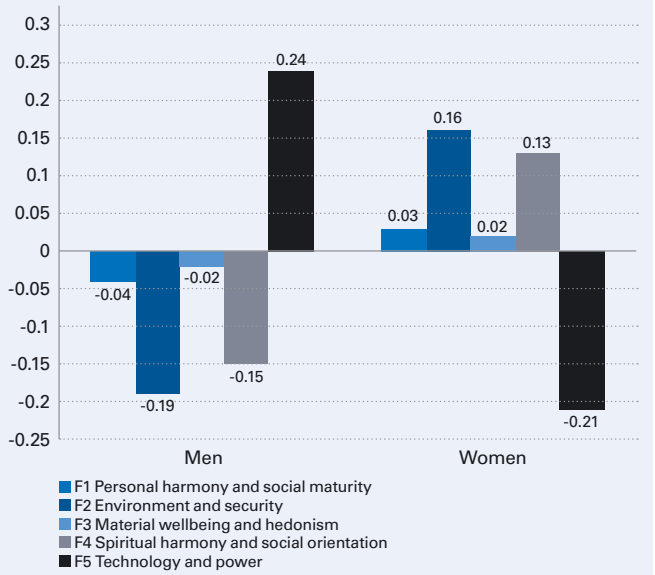
Examining the value orientations of men and women in three age groups (see Table 5.3.1), there is no reason to speak about a tendency of the value sets of the two genders becoming more similar to each other – rather the opposite. Both middle-aged and older men and women are similar in regard to two value orientations – the values related to material wellbeing and hedonism, as well as personal harmony and social maturity, which are significantly less important than the sample average. On the other hand, younger men and women are alike only by a markedly stronger orientation towards material wellbeing and hedonistic values. Young men appreciate values related to technology and power higher than young women do, while women in the younger generation are significantly more oriented towards values related to personal harmony and social maturity.

A similar trend appeared in the value survey carried out among Tallinn secondary school graduates in autumn 2007 (see Rämmer 2009). At the same time, the greater similarity between the value orientations of Russian-speaking men and women does not mean that their understanding of justice is any less patriarchal - quite the opposite. The 2004 survey data show that Russian-speaking men (compared to both women and Estonian-speaking men) take the position significantly less frequently that gender should not affect wages (Vöörmann, Plotnik 2008). Russian-speaking women also take the position far less frequently than Estonian-speaking women that wages should not be based on gender. Thus, the concept of salary-related gender equality is more recognised among ethnic Estonians than the Russian-speaking population.

Interesting results are also provided by a comparison of men and women's value orientations by ethnic group. Figure 5.3.3 shows that the sets of values of Russian-speaking men and women are more similar to each other than are those of Estonian men and women. While the latter are alike based only on an orientation towards material wellbeing and hedonism that is lower than the sample average, the Russian-speaking men and women are similar in regard to three value orientations. It is possible that their shared status as a cultural minority has caused Russian-speaking men and women to consider material wellbeing and hedonism to be important as deficiency values, to place less importance (compared to ethnic Estonians) on values related to personal harmony and social maturity (for instance, self-realisation, self-respect, freedom, mature love, wisdom) and to search for mental and ideological support from values related to spiritual harmony and social orientation (the latter may also come from the community's religious background).

At the same time, the greater similarity between the value orientations of Russian-speaking men and women does not mean that their understanding of justice is any less patriarchal - quite the opposite. The 2004 survey data show that Russian-speaking men (compared to both women and Estonian-speaking men) take the position significantly less frequently that gender should not affect wages (Vöörmann, Plotnik 2008). Russian-speaking women also take the position far less frequently than Estonian-speaking women that wages should not be based on gender. Thus, the concept of salary-related gender equality is more recognised among ethnic Estonians than the Russian-speaking population.

Figure 5.3.2. Value orientations among men and women (mean factor scores)



Source: Me. The World. The Media 2008

Table 5.3.1. Value orientations among men and women by age group (mean factor scores)

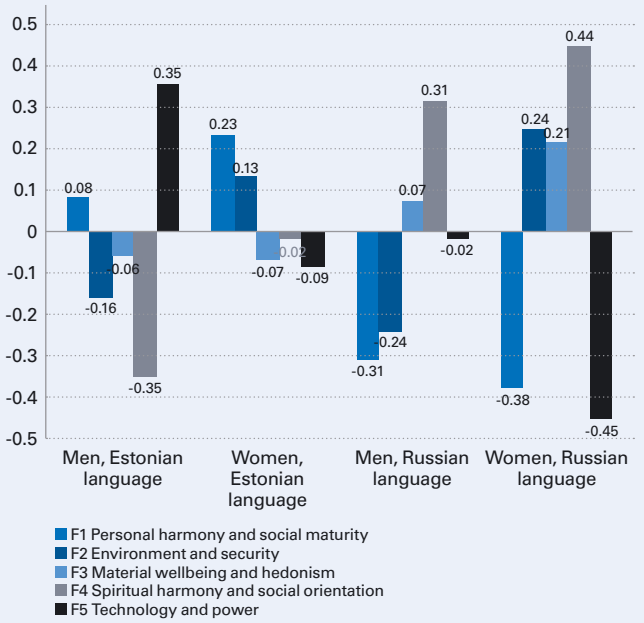
Name of the factor and the included values	Mean factor score in the group					
	15–29		30–54		55–74	
	Men N = 204	Women N = 230	Men N = 308	Women N = 352	Men N = 193	Women N = 220
F1 Personal harmony and social maturity: true friendship, self-realisation, justice, honesty, self-respect, mature love, freedom, wisdom, happiness, inner harmony	0.06*	0.27*	–0.1	0.03	–0.04	–0.21
F2 Environment and security: health, world at peace, clean environment, family security, national security	–0.5**	–0.15**	–0.16**	0.19**	0.11**	0.47**
F3 Material wellbeing and hedonism: comfortable life, wealth, pleasant life, exciting life	0.33	0.37	–0.02	–0.03	–0.39	–0.27
F4 Spiritual harmony and social orientation: salvation, world of beauty, social recognition, equality	–0.12*	0.08*	–0.17**	0.12**	–0.13**	0.19**
F5 Technology and power: technical development, power	0.27**	–0.16**	0.2**	–0.24**	0.26**	–0.2**

*** - difference between the groups is statistically significant at p<=0.01*

** - difference between the groups is statistically significant at p<=0.05*

Source: Me. The World. The Media 2008

Figure 5.3.3. Value orientations among Estonian-speaking and Russian-speaking men and women (mean factor scores)



Source: Me. The World. The Media 2008

Table 5.3.2. Value orientations among men and women in Estonia and neighbouring countries (mean factor scores)

Name of the factor	Mean factor score in the group							
	Estonia		Russia		Finland		Sweden	
	Men N = 675	Women N = 915	Men N = 838	Women N = 1271	Men N = 869	Women N = 927	Men N = 730	Women N = 766
F1 Conformity and security	–.21**	–.02**	.26**	.46**	–.23	–.14	–.51	–.51
F2 Consideration and freedom	–.43**	–.13**	–.45*	–.34*	–.12**	.25**	–.34**	.06**
F3 Hedonism and excitement	.02**	–.17**	–.13**	–.40**	.05*	–.05*	.14	.16
F4 Success and recognition	.06**	–.17**	.68**	.54**	–.14**	–.52**	–.22**	–.45**

*** - difference between the groups is statistically significant at p<=0.01*

** - difference between the groups is statistically significant at p<=0.05*

Source: European Social Survey 2008

Value orientations of Estonian men and women in an international comparison

In order to examine the differences in the sets of values of Estonian women and men against the background of other countries, we used data from the European Social Survey, which allows for the comparison of the values of the populations of 17 countries based on 21 indicators. In order to achieve broader generalisability, we carried out factor analysis – the best possibilities for interpretation were provided by the 4-factor solution. Values measured by the question "How much like you is the person for whom it is important …" (1 – "not like me at all" … 6 – "very much like me") were grouped into factors as follows:

F1 Conformity and security: always to behave properly; to follow rules at all times; traditions; to live in secure surroundings; that the government ensures his/her safety against all threats; to be humble and modest;

F2 Consideration and freedom: to listen to people who are different from him/her; that every person in the world should be treated equally; to help the people around him/her; to be loyal to his/her friends; to look after the environment; to think up new ideas and be creative; to make his/her own decisions about what she/he does;

F3 Hedonism and excitement: to have fun and do things that give him/her pleasure; having a good time; to have an exciting life; to do lots of different things in life;

F4 Success and recognition: to show his/her abilities; to be very successful; to be rich; to get respect from others.

In most of the European countries that were examined, value factors 1 and 2 are characteristic of women, while value orientations 3 and 4 are characteristic of men. However, there are countries where the sets of values of men and women are more similar. In Norway and Sweden, there are no differences in two value orientations and the men and women of Belgium, Cyprus, Portugal, France, Finland, the United Kingdom and Switzerland are similar in regard to one value orientation. Differences appear in regard to all four value orientations in the post-Socialist countries (Bulgaria, Estonia, Poland, Slovenia and Russia) as well as in Spain, Germany and Denmark.

Compared to the neighbouring countries (Russia, Finland and Sweden; Table 5.3.2) the differences in the sets of values of men and women in Estonia are most pronounced – in Estonia there are four statistically significant differences between the value orientations of men and women; there are three in Russia and two in Sweden.

References

1. Kalmus, V., Vihalemm, T. (2004). Eesti siirdekultuuri väärtused. In: Kalmus, V., Lauristin, M., Pruulmann-Vengerfeldt, P. (eds.), Eesti elavik 21. sajandi algul: ülevaade uurimuse Mina. Maailm. Meedia. tulemustest. Tartu: Tartu University Press, pp. 31–43
2. Kalmus, V. (2006). Eesti elanike väärtushinnangute muutused 2002–2005: uurimuse Mina. Maailm. Meedia aruanne. Tartu: Department of Journalism and Communication, University of Tartu
3. Rokeach, M. (1973). The Nature of Human Values. New York: Free Press
4. Rämmer, A. (2009). Eesti koolinoorte väärtused. In: Sutrop, M., Valk, P., Velbaum, K. (eds.), Väärtused ja väärtuskasvatus: Valikud ja võimalused 21. sajandi Eesti ja Soome koolis. Tartu: Centre for Ethics of the University of Tartu, pp. 83–117
5. Vöörmann, R., Plotnik, H. (2008). Sotsiaalne õiglus ja sugu. In: Plotnik, H. (ed.) Sotsiaalse õigluse arusaamad Eesti ühiskonnas. Tartu: Tartu University Press, pp. 107–121

5.4. Cultural participation

Throughout history, people's contacts with the cultural environment have been expressed most directly in contacts with cultural artefacts and cultural media, and in participation in the artistic creative process as professional or non-professional artists or as recipients of artistic works. The following analysis examines culture in the narrower sense – we define culture primarily as artistic creation and its field of consumption. We will study the indicators related to cultural interests, consumption of culture and cultural preferences. In this connection, we are interested in how the differences in the gender and ethnic value patterns described in the previous sub-chapter are expressed through cultural preferences.

In a similar manner to the previous sub-chapter, as empirical data, we are using the results of the *Me. The World. The Media* survey that was conducted by the Institute of Journalism and Communication at the University of Tartu in cooperation with the Faktum and Saar Poll research companies (2002, 2005, 2008). We are also analysing data from Eurobarometer 278 (2007)[29].

When we compare the participation of the Estonian population in cultural life with other EU countries, using the Eurobarometer data collected in 2007, we see that in all forms of cultural participation under examination, besides going to the movies, contacts with the cultural environment in Estonia is greater than the EU average (see Table 5.4.1).

The Nordic countries and the Netherlands are distinguished by their active participation in the cultural field. Based on data from the same 2007 Eurobarometer (see Table 5.4.2), the level of participation in cultural activites in Estonia is also close to that of the Nordic countries. In Sweden, Finland, Denmark, the Netherlands, Germany and some areas of France, people's participation in various self-expressive cultural activities is much more widespread than in the countries of Southern Europe. If we rank all 16 countries represented in Tables 5.4.1 and 5.4.2, based on the activeness of their consumption of cultural media, we get a composite index of the activeness of cultural consumption[30], which we can use to compare various European countries (see Figure 5.4.1).

Activeness in cultural participation is one of the few fields of activity in which Estonia is clearly similar to the Nordic countries. Cultural participation is also at quite a high level in the Czech Republic, Latvia, the United Kingdom, Germany and Lithuania. It is noteworthy that the nature of the cultural consumption and interests differs in North and South Europe rather than in East and West Europe.

How much do cultural relations differ inside Estonia? The Eurobarometer data show that in all European countries cultural participation is related, as expected, to the level of education. However, is it the only factor? How much is cultural consumption and participation in cultural field related to social factors, primarily gender, ethnicity and age? Considering the aforementioned trend for the differentiation of the value orientations of men and

Table 5.4.1. Participation in cultural life in various EU countries in 2007 (has been engaged in the activity at least once during the last 12 months, % of the population over 15 years old)

	Read a book	Went to the theatre	Went to a concert	Went to the library	Went to a museum or gallery	Visited a historical monument	Watched a cultural programme on TV or listened to one on the radio	Went to the cinema
Sweden	87	47	53	70	62	75	88	71
The Netherlands	84	58	56	51	62	71	84	62
Denmark	83	40	58	68	65	76	89	69
Czech Republic	82	44	45	32	44	68	87	53
United Kingdom	82	41	40	53	49	61	77	53
Germany	81	37	42	28	48	65	78	53
Estonia	79	49	62	51	48	63	93	34
Finland	79	48	51	72	51	63	89	52
Hungary	78	31	31	33	39	45	87	36
Latvia	75	41	59	39	47	62	90	36
EU-27	72	32	37	35	41	54	78	51
France	71	23	35	33	43	54	79	63
Lithuania	64	27	52	32	33	51	90	33
Poland	64	18	29	37	32	48	81	41
Italy	63	26	31	29	34	49	74	54
Spain	59	25	34	29	38	50	71	56
Portugal	50	19	23	24	24	35	67	39

Source: Eurobarometer 278, 2007

Table 5.4.2. Cultural hobbies in various EU countries in 2007 (has been engaged in the activity at least once during the last 12 months, % of the population over 15 years old)

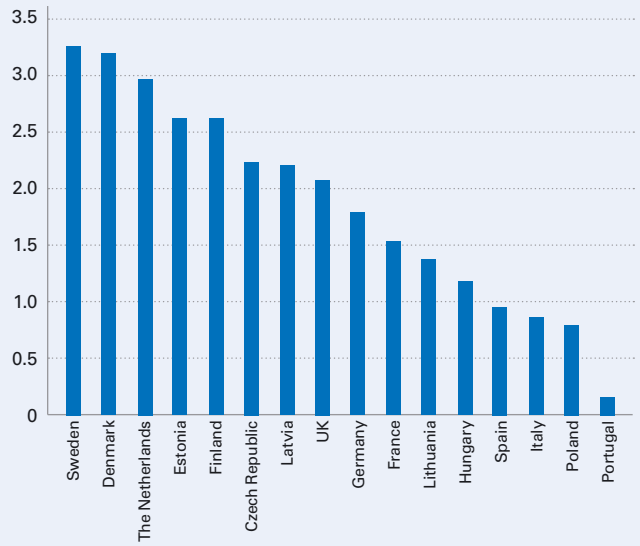
	Playing an instrument	Singing	Theatre, acting	Dance	Literary creation	Home decorating, handicrafts, decorative gardening	Film, photography	Fine or applied arts	Did not participate in any of these
Sweden	26	40	8	36	35	77	65	34	7
Estonia	10	26	6	33	18	62	43	17	13
Finland	17	27	5	25	24	57	37	24	18
France	14	17	2	23	18	63	33	24	20
Denmark	16	27	6	26	23	52	51	29	21
The Netherlands	19	21	7	22	25	43	36	31	22
Germany	13	21	2	26	15	54	40	21	23
United Kingdom	15	15	5	19	16	54	25	23	26
Czech Republic	11	19	6	25	8	41	33	14	27
EU-27	10	15	3	19	12	36	27	16	38
Latvia	8	14	4	11	8	26	27	11	43
Italy	7	9	2	5	7	13	26	9	4
Hungary	5	9	3	11	5	24	22	10	52
Spain	6	8	4	18	7	12	18	11	54
Lithuania	5	10	5	10	7	19	9	8	56
Poland	6	8	2	13	5	13	15	8	62
Portugal	4	4	2	5	5	8	6	5	73

Source: Eurobarometer 278, 2007

[29] http://ec.europa.eu/public_opinion/archives/eb_special_280_260_en.htm

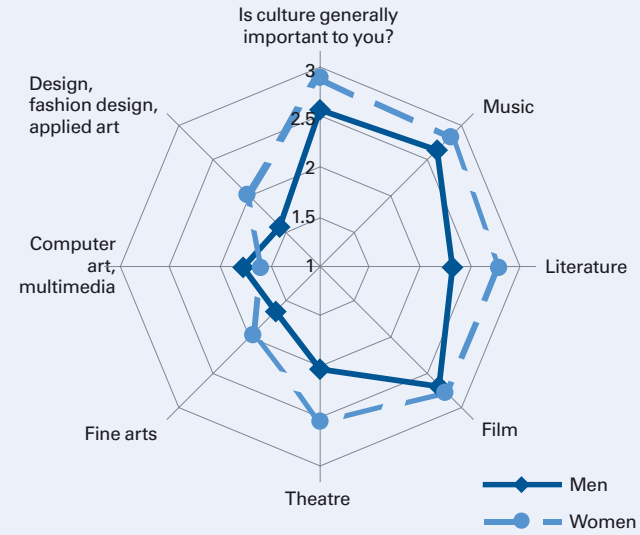
[30] To get the 4-point composite index, based on Table 5.4.1, we found the position of each country in the cultural activeness ranking of the different fields of activity, calculated the summational average of the rankings, and divided this by four.

Figure 5.4.1. Estonia's position among 16 EU member states based on the values of a composite index of the activeness of cultural consumption



Source: Eurobarometer 278, 2007

Figure 5.4.2. The importance of culture and various artistic fields of activity for men and women (means of a 5-point scale, 1 - not important at all, 5 - very important)



Source: Me. The World. The Media 2008

women, the gender differences in participation in the cultural sphere is of primary interest. Indeed, as we can see from Figure 5.4.2, the activeness of women is noticeably greater in almost all cultural fields. We see that the general significance of culture and cultural contacts in various artistic fields, except for film and computer art, are much more important in the women's life. This is also expressed in their lifestyle – while sports and technology play a greater role in men's lives, intellectual interests, especially those related to reading, theatre and listening to music, are more specific to women (see Figure 5.4.3). There are no fundamental differences between Estonian-speaking or Russian-speaking respondents in the feminine-masculine pattern (see Figure 5.4.4).

From Figure 5.4.3, we see that in regard to cultural interests, the shared preference of men and women is watching TV and reading newspapers and magazines, as well as using the Internet and spending time in nature. At the same time, there are significantly more activities in which women are more active – they visit libraries, bookstores, museums, concerts more often, spend more time in the company of others, read more fiction and deal more actively with self-education. Men participate more actively in sports and technical hobbies.

If we compare the gender differences of the Estonian-speaking and Russian-speaking population separately in regard to cultural activeness (see Figure 5.4.4), we see that gender differences are greater among Estonians, with Estonian women being the most active in respect to the general importance of culture, as well as showing an interest in music, theatre and literature.

Typology of cultural consumption

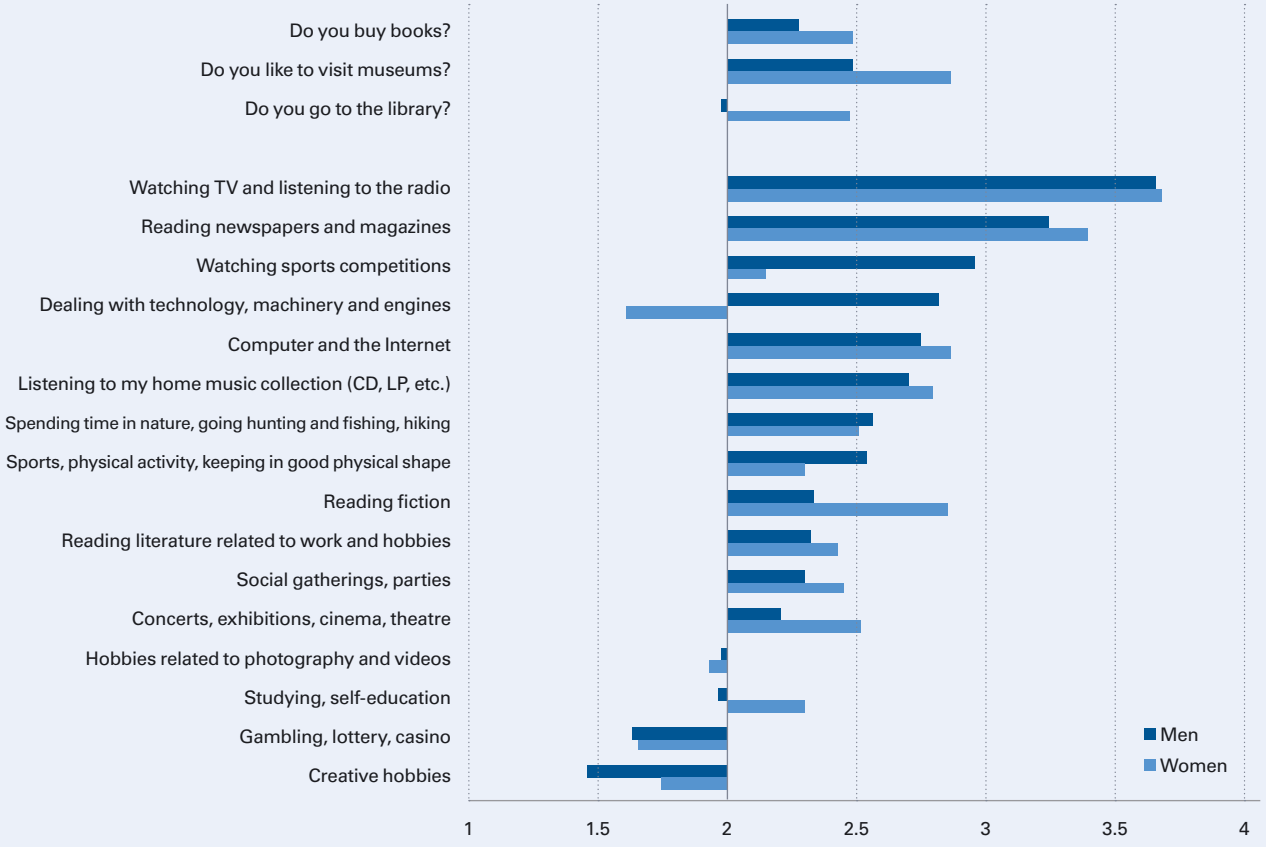
Differences in people's cultural environment are best characterised by the entire pattern of the various manifestations of cultural activeness and cultural preferences rather than by individual hobbies or forms of cultural consumption. To ascertain this, a special data processing method, cluster analysis, can be used, which classifies respondents, based not on individual answers, but on a whole cluster of variables. Based on the variables that indicate the content and activeness of the respondents' cultural interests and hobbies, all the respondents were classified into five categories. Below we treat them as types of cultural consumption (see Figure 5.4.5).

The following are short characterisations of the distinctive features and compositions of various types of cultural consumers.

A-type: the versatile and active hedonistic participant in culture (24.5%). This group includes people who are characterised by the most active and diverse contacts with the cultural sphere. In addition to frequent contacts with books, music and art, they are characterised by very active communication with friends, participation in societies and clubs, and greater than average activeness in sports activities. Their diverse reading interests are differentiated from other respondents by a greater than average preference for topics related to social matters and culture, as well as the active reading of fiction and an interest in topics related to their homes and socialising. They have also travelled more, participated in professional training and in large sports and cultural events. Their attitudes towards life are hedonistic and orientated to self-realisation. As expected, there is a predominance of successful young women in this cluster (see Annex table 5.4.1). One third of all female respondents belong to this group, but only one in six of the men. The group has slightly more ethnic Estonians.

B-type: a traditional cultural consumer with cognitive interests, orientated towards broadening his/her horizons (19%). He/she is interested primarily in books and art, being less interested in music. His/her relationship with culture is characterised by a strong cognitive dominant. He/she prefers books on nature and history, and other topics that broaden one's horizons, but reads more

Figure 5.4.3. Differences in the lifestyles of men and women (mean frequency assessments for various activities on a 4-point scale, 1 - not at all, 4 - very frequently)

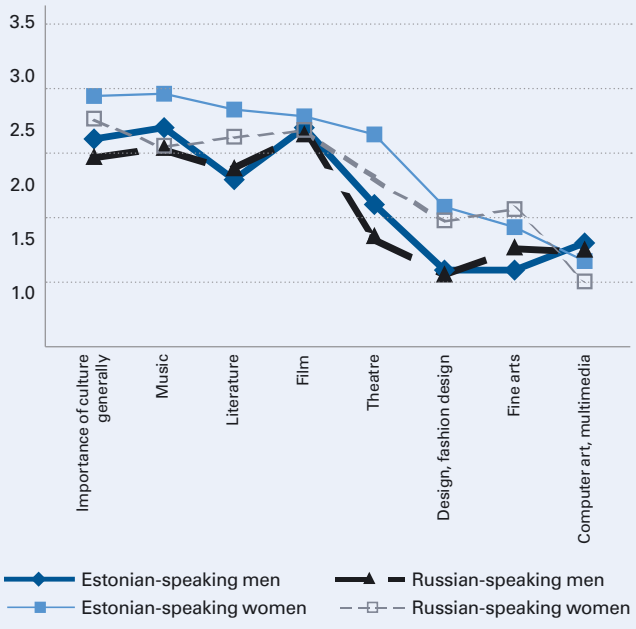


Source: Me. The World. The Media 2008

fiction than average and reads books mostly at home, not at the library. He/she does not participate actively in social life and rarely attends large-scale events, while being relatively active in politics. We can consider this type to be a traditional cultural consumer. He/she can be encountered in both poorer and wealthier strata, among both the Estonian-speaking and Russian-speaking population. The type is characterised by a higher than average level of education, with a preponderance of middle-aged and older people, and a slight prevalence of women.

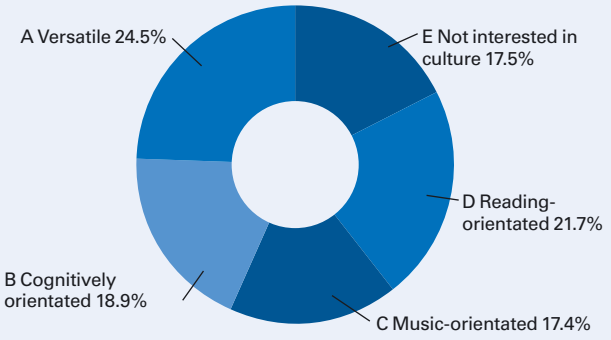
C-type: an entertainment lover who is interested in music, sports and technology (17%). The people classified as belonging to this group are not known for their great interest in reading, but they are active music lovers and technology and sports fans. They have an athletic and social lifestyle; Internet-based communication and entertainment play a great role. They are active consumers and attend large sports and cultural events although they are hardly ever found in the library. Regarding books, they are interested primarily in those about technology or sports, or books needed for their professions (studies). To a great extent, this type is the opposite of the previous type, since, as expected, younger people belong to this type, and 20–29-year-old men comprise the greatest share. Almost one-quarter of the male respondents belong to this athletic and technology-orientated type, while only slightly more than ten percent of women do. Like type A, this group is more successful than average, and its members

Figure 5.4.4. Significant gender differences in culture and various artistic fields of activity among Estonian-speaking and Russian-speaking respondents (means of a 5-point scale, 1 - not important at all, 5 - very important)



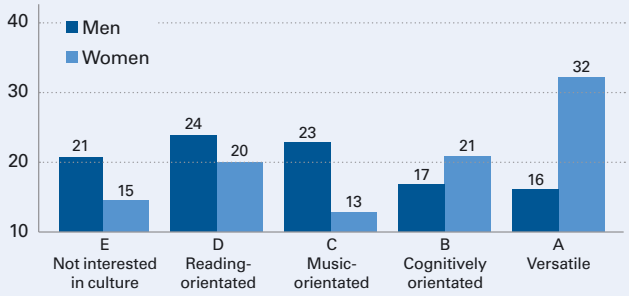
Source: Me. The World. The Media 2008

Figure 5.4.5. Distribution of the Estonian population into types of cultural consumers in 2008 (% of respondents)



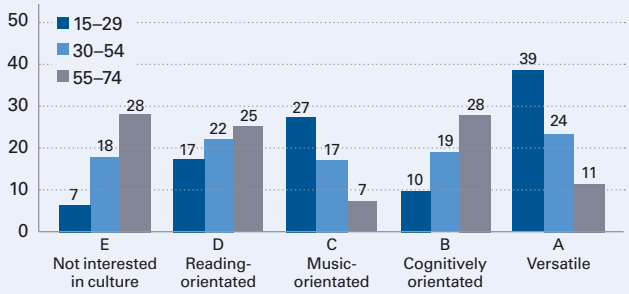
Source: Me. The World. The Media 2008

Figure 5.4.6. Distribution of women and men into cultural clusters (%)



Source: Me. The World. The Media 2008

Figure 5.4.7. Distribution of age groups into cultural clusters (%)



Source: Me. The World. The Media 2008

place themselves on the highest rungs of the social ladder. Neither education nor ethnicity is relevant to the characterisation of this type.

D-type: a reader, traditional relatively passive book lover (22%). Compared to the previous type, this type is characterised by a much greater interest in literature and active library use. At the same time, his/her circle of cultural interests and hobbies is limited. He/she is primarily interested in recreational reading and content that broadens one's horizons. This type includes every fourth man and fifth women. Therefore, there is a slight prevalence of men. Among socio-demographic characteristics, the most important is a relatively low social position and low income, while educational indicators are near average. This relatively passive book-centred cultural relationship is slightly more typical of middle-aged ethnic Estonians.

E-type: the type that is orientated primarily towards material values and is far from culture (17.5%). The contacts of this group with the cultural environment are more of the everyday variety. They have few cultural interests and their participation in culture is limited. These are older people who are poorer than average and who have placed themselves on the lowest rung of the social ladder. Their value orientations are dominated by a deficit of material wellbeing. The share of Russian-speaking and male respondents is greater than average in this group.

In summary, we can say that one's relationship with the cultural environment in today's Estonia depends to a great extent on people's gender and generational affiliation (see Figures 5.4.6 and 5.4.7), while the impact of one's income tends to be indirect, filtered through the social environment or class affiliation (see Figure 5.4.8). In this connection, we can assume that greater cultural capital will also help to increase the social self-assessment of people with lower incomes.

The typologies created in previous years also confirm the decisive importance of gender and age. Compared to previous survey waves (2002, 2005), we see the strengthening of the hedonistic orientation and the fact that those who belong to the profoundly versatile cultural type are becoming younger. A strengthening of the entertainment orientation is also noticeable, particularly among young men. We could even say that in contacts with the cultural environment, we can differentiate a "cultural male type" and a "cultural female type" (which does not always mean specifically belonging to the female or male sex, but rather a pattern of certain preferences and interests). In previous surveys (which in addition to general cultural activeness studied specific taste preferences) the cultural preferences of the "male type" was based more on the criteria of tension and excitement or practical usefulness, while the "female type" was differentiated as a carrier of cultural traditions, familial and communication networks, as those who value everyday life and the cultural environment, and those who prefer to identify and empathise with cultural experiences. It is important to note that such a segmentation of gender-related cultural relations does not occur in the preferences for diverse "highbrowed" culture and refined tastes (see Lõhmus et al. 2004; 2006; 2010).

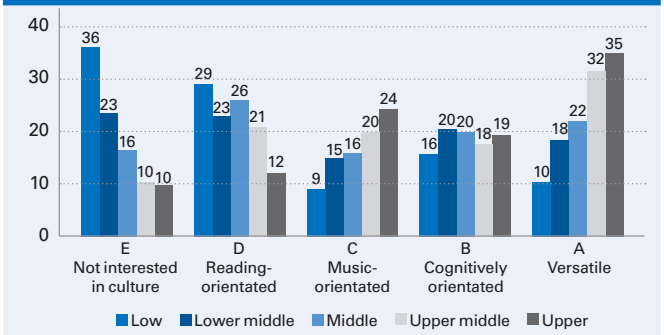
The differentiating effect of age is clear in the comparison of under 30-year-olds and over 45-year-olds: in the older generation, the cultural relationship is clearly more focussed on the written word, more active and more selective. In the case of younger people, however, youth culture with an entertaining nature clearly dominates, and its media include music and the Internet.

The ethnic differentiation of the types of cultural activeness was weaker than expected – the only noticeable trend was that, compared to Estonians, in the Russian-speaking population greater polarisation has occurred between the small group of very active and versatile culture lovers and the relatively large group that is detached from culture. At the same time, the effects of gender and age on the Estonian-speaking and Russian-speaking respondents are quite similar.

References

1. Lõhmus, M., Lauristin, M., Salupere, R. (2004). Inimesed kultuuriväljal: aktiivsus ja eelistused. In: Kalmus, V., Lauristin, M., Pruulmann-Vengerfeldt, P. (eds.), Eesti elavik 21. sajandi algul: ülevaade uurimuse Mina. Maailm. Meedia tulemustest. Tartu: Tartu University Press, pp. 97–127
2. Lõhmus, M., Lauristin, M., Salupere, R. (2006). People in the Domain of Culture: Everyday Environment, Active Participation and Preferences. In: Sudweeks, F., Hrachovec, H., Ess, C. (eds.), Cultural Attitudes towards Technology and Communication 2006. Murdoch: Murdoch University, pp. 216–227
3. Lõhmus, M., Lauristin, M., Siirmann, E. (2010). The Patterns of Cultural Attitudes and Preferences in Estonia. In: Lauristin, M., Vihalemm, P. (eds.), Estonia's Transition to the EU: Twenty Years On. London ja NY: Routledge, pp. 73–91

Figure 5.4.8. Distribution of social classes into cultural clusters (%)



Source: Me. The World. The Media 2008

Annex

Annex table 5.4.1. Composition of the types of cultural consumers 2008, %

		Composition of the clusters of cultural consumers					
		A Versatile	B Cognitively orientated	C Music-orientated	D Reading-orientated	E Not interested in culture	All
Age	15–19	18.1	2.6	12.0	9.2	1.7	9.3
	20–29	27.3	12.6	33.4	13.9	9.2	19.5
	30–44	28.7	23.7	30.4	22.1	25.3	26.0
	45–54	13.3	20.5	12.6	23.0	19.7	17.8
	55–64	7.4	24.0	7.4	19.6	23.1	15.9
	65–74	5.2	16.5	4.2	12.2	21.0	11.5
Gender	Man	30.5	41.4	61.2	51.3	55.6	46.8
	Woman	69.5	58.6	38.8	48.7	44.4	53.2
Education	Basic education	22.0	14.4	28.4	26.3	38.1	25.4
	Secondary education	46.6	53.0	45.2	54.7	51.6	50.2
	Higher education	31.3	32.6	26.4	19.0	10.3	24.4
Income	Up to 2500 EEK	13.8	10.6	13.3	17.0	11.8	13.5
	2501–4000 EEK	20.6	22.0	17.8	21.1	30.7	22.2
	4001–6000 EEK	26.3	27.3	27.1	30.5	35.7	29.2
	6001–10,000 EEK	27.2	24.7	27.0	22.6	15.3	23.6
	More than 10,000 EEK	8.0	10.6	11.4	5.1	3.3	7.6
Class affiliation	Low	5.5	10.7	6.7	17.3	26.6	12.9
	Lower middle	13.2	19.0	15.0	18.5	23.5	17.5
	Middle	23.6	27.7	23.9	31.6	24.8	26.3
	Upper middle	28.4	20.6	25.1	21.1	13.0	22.1
	Upper	29.4	21.3	28.8	11.6	11.5	20.8
Language	Estonian	79.5	69.1	67.3	74.9	46.7	68.7
	Russian	20.5	30.9	32.7	25.1	53.3	31.3

Source: Me. The World. The Media 2008

5.5. The values of schoolchildren and value education

At the time when Estonia was still fighting for its right to return to the family of European nations, President Lennart Meri made speeches to persuade the people that the basis for the Estonian identity was its common values, which have connected us through the centuries to the West-European cultural space (Meri 2001). However, Lennart Meri's *Political Testament* (2007) includes a sad admission that "We have been successful in everything except the recreation of the Estonian value system." One could ask how much more time it will take for moral values (tolerance, honesty, caring, justice and human dignity) to be rehabilitated.[31]

In order to change value preferences, we should invest in the education of the new generation, and therefore our gazes should be turned towards the schools. Although the home has the greatest impact on children's upbringing, the education system holds a powerful lever for dealing with systematic value education.

If we study today's Estonian schools, we see that there are two sides of the coin. On the one hand, our students show good performance in international comparative education surveys, such as TIMSS[32] and PISA[33]. On the other hand, several studies show that we have reason to be concerned about the attitudes of our students. Although the students' acquired knowledge is good, learning does not provoke any joy or interest. Thus, the 2006 PISA survey showed that the students' knowledge about natural sciences was good, but only 40% of the students considered solving natural science problems to be enjoyable, and only 26% expressed a desire to work in professional fields related to the natural sciences in the future.

Several experts have indicated the possible roots of the problem: in the schools, the development of the students' curiosity, creativity, autonomy and self-expression has been given a secondary role alongside the acquisition of knowledge. In the course of the study conducted in the framework of the target-financed Tallinn University project entitled "School as Development Environment and Students' Coping" (2003–2007), it turned out that 70% of Estonia's students considered their study load to be constantly or occasionally too great; 67% complained of chronic fatigue, and 33% said they do not want to go to school (Ruus et al. 2007). In addition, 67% of students confessed that they have ridiculed or teased someone during the last six months, and 9% had even beaten up someone or hit them hard. The Index of Child Well-Being in the EU conducted by the University of York in 2006 (Bradshaw, Hoelscher, Richardson 2007) also directed attention to serious social problems in Estonia's schools. Among the 25 European countries, Estonia stands out for its low level of school attractiveness, the students' extremely low feeling of subjective wellbeing, and the frequency of acts of school violence. In the assessment of the children's wellbeing, the following were taken into account: the socially inclusive nature of the school climate, supportive companions, as well as good academic knowledge that has been acquired with minimum stress. It is also very noteworthy that in the last study, the children considered their relations with their peers to be very poor (third from the last). Since these factors undoubtedly play a great role in child development, it is important to analyse how this situation has developed and what we should pay attention to in managing future developments.

What are the roots of Estonia's problems?

The central problem is definitely the fact that the delivery of knowledge, and not the education of an integrated personality or the creation of conditions for a happy life, is considered to be the purpose of a school education. The success of schools is measured by the results of state examinations, and students are only graded on acquired knowledge, while sufficient attention is not paid to personality development. Dealing with the aforementioned social problems could be supported by perceiving, recognising, and promoting the socialising function of schools. Estonia's schools are faced with the challenge of changing from a knowledge factory to an environment that supports young people growing into creative, harmonious personalities who are able to realise themselves fully in various roles – in the family, at work and in public life.

Of course, schools cannot be treated separately from society. In the case of Estonia, this means that we are affected simultaneously by globalisation, urbanisation and the collapse of old values caused by the rapid development of information technology and the media. In addition, we have the ethical crisis of a post-Communist society, which is characterised by the disregard of moral standards, a low level of trust, authoritarianism, intolerance and the insufficient appreciation of self-expression.

During periods of great social change, the older generation tends to preserve the hierarchy of traditional values, while young people are prone to accept new values and beliefs. Such a situation – one that creates differences between generations – exists in the post-Socialist coun-

[31] For more information about the difficulties of recreating the Estonian value system, see the compendium *Mõtestatud Eesti – ühiseid väärtusi hoides* (Sutrop, Pisuke 2008).

[32] 49 countries participated in the TIMSS 2003. From Estonia 154 schools and 4,040 8th-graders participated. Estonia achieved 5th place in natural science subjects and 8th place in mathematics.

[33] Estonia participated in a PISA survey for the first time in 2006. At the time the literacy in natural sciences was being studied. Students aged 15-16 from 57 countries participated. The sample from Estonia was 4865 students – 2386 girls and 2479 boys. Among them 24.3% were studying at schools with Russian-language instruction. In natural sciences, based on average points, Estonia was placed 5th after Finland, Hong Kong, Canada and Taiwan. Imbi Henno, Priit Reiska and Viive-Riina Ruus (2008) have pointed out that, compared to knowledge related to the content of natural sciences, our students were weaker in recognizing problems related to natural sciences and making use of scientific evidence.

tries, although there are also many changes in the post-modernist welfare states (Toomere 2001; Hämäläinen, Kraav, Bizaeva 2002). In this situation, kindergartens and schools have an important role to play in shaping the values of young people, as well as developing and correcting the value hierarchies that have been created at home.

Now, based on specific studies, let's have a look at the values of today's young people, the values that young people believe they have acquired from home, and which other factors they consider important in forming their values.

What are the values of young people?

In order to get an idea of the state and possibilities of value education, and possible results and risks involved, one must consider the characteristics of both the value educators and those being educated.

Based on several studies, similar trends in the values of young people appear. The results of our study also show that five values, placed among the top ten values in all countries, are at the top of the value hierarchies of the young people in these three countries (see Table 5.5.1).

Since ethnic Estonians comprise only 2/3 of the Estonian population, the overall picture includes the values of other peoples, primarily Russians, among whom great differences exist based on citizenship, language proficiency, information channels, and social networks. It is especially interesting to compare the values of Russian students living in Estonia with their peers in the St. Petersburg region of Russia, which leads one to assume the connection between the endurance of an ethnic mentality and the reality of socialisation.

The differences between countries (see Tables 5.5.1 and 5.5.2) are thought-provoking. What lies behind the fact that ethnic Estonians (and Finns) rate *sense of humour* higher than Russian students in either country? Why is *love* less important to Russian students in both countries than it is to ethnic Estonians – while at the same time, they rate *family* and *close relations with one's family* higher than ethnic Estonians and Finns? There was a very big difference in the assessment of *wisdom* – is this a translation issue, having to do with different connotations in different languages? Why is *self-respect* and *independence* so much more important for Russians than for Estonians?

Students of all the surveyed countries have suffered either directly or indirectly as the result of war – still, Russians in Estonia rate *life without war* the highest, even higher than their compatriots on the other side of the border, while ethnic Estonians left this value out of the top ten.

One can assume that the differences in values are related to the historical and cultural backgrounds of the respondents' native countries, and value shifts that are inherent in post-modernism take place in all countries, but at a slightly different pace. Placing importance on hedonistic values seems to be most widespread in Finland (*sensual pleasures* were 11th in the value hierarchy), while a similar trend has also been noticed in Estonia during the last ten or so years (19th place among Estonians). At the same time, Russians living in Estonia rate *sensual pleasures* just as low as their peers in Russia.

As a general principle, it appears that values of students at Russian-language schools are much closer to their peers in Russia than to the value judgements of young ethnic Estonians surrounding them (see Table 5.5.2).

Table 5.5.1. The values of students in Estonia, Finland and Russia that are among the top ten (mean assessments on a scale of 1-5, where 1 = "not important at all" and 5 = "very important", ranking number; p<.001)

Value	Estonia*	Finland	Russia
Friendship	4.83 (1)	4.60 (1)	4.73 (2)
Family	4.71 (3)	4.43 (4-5)	4.74 (1)
Health	4.62 (4)	4.53 (3)	4.59 (5)
Justice	4.56 (6-7)	4.38 (8)	4.48 (9)
Ability to be oneself	4.56 (6-7)	4.35 (10)	4.58 (6)

** The contingent of Estonian students includes both ethnic Estonian and Russian students studying in Estonia*

Source: Values of Senior Basic School Students in 2004-2007

Who do young people believe form their values?

A certain picture of the importance of the role of the value educator is provided by the young people's own assessments (see Table 5.5.3). However, it is not precluded that some influences are not perceived and that hidden messages and the unspoken stances of people who are important to young people affect the formation of their values more than they want to (or know how to) acknowledge.

The respondents consider their parents to be their primary value educators, which is very natural, if one thinks about the effectiveness of influences in early childhood in the diversity of shared everyday situations. The young people place their friends in second place.

Finnish students assess the influences they have acquired more modestly than the others. The reason may be the tendency to avoid extreme answers (this appears in all the surveys), but also the lesser authoritarianism of the parents (Hämäläinen, Kraav, Raudik 1994; Lahikainen et al. 1995; Hirsjärvi, Laurinen 2004), which leaves the child feeling that he/she has been able to acquire life experiences on his/her own without having demands placed on him/her.

Estonian students placed teachers in third place as value educators, students in Russia placed them fourth (literature is third), while Finns placed them fifth (they felt classmates and the media were more important). It is interesting that while the society is increasingly more concerned about the influence of the media, the students do not consider its influence to date to be very great. One could assume that the reason is not the paucity of the media's influence but the specific traits of the media that change it into a "hidden" co-educator.

What values do children think their parents have?

We saw that young people consider their parents, their parents' example and direction to be the most important factors in the formation of their values. Considering the fact that young people are influenced more by their parents' behaviour and activities than by their verbal confirmations that something is valuable, we asked 8th-grade

Table 5.5.2. The hierarchy of students' values*: Students' most important values in Estonia's Estonian-language schools, Estonia's Russian-language schools, in Finland and Russia (Saint Petersburg and Novgorod) (ranking number)

Value	Students at Estonia's Estonian-language schools	Students at Estonia's Russian-language schools	Finland's students	Russia's students
Cleanliness, hygiene	2	6	7	15
Sense of humour	5	10	4-5	13
Wisdom	8	34	25	34
Honesty	9	20	6	22
Love	11	18	9	20
Life without war	14	1	2	3
Self-respect	17	7	17	8
Independence	25	14	40	7
Sensual pleasures	19	30	11	29

** The values that appeared in the previous table have been left out of this table*

Source: Values of Senior Basic School students in 2004-2007

Table 5.5.3. Students' perception of the factors that influence the formation of their values (% of students who answered "very much" or "much", ranking of the value educator)

Agent	Estonia's students	Finland's students	Russia's students	p
Parents	80 (1)	71 (1)	82 (1)	.000
Friends	67 (2)	58 (2)	59 (2)	–
Teachers	39 (3)	17 (5)	40 (4)	.000
Media	38 (4)	20 (4)	34 (5)	.000
Classmates	38 (5)	28 (3)	32 (6)	–
Literature	33 (6)	14 (6)	45 (3)	.000
Nonprofit organisations	15 (7)	11 (8)	21 (7)	.05
The Church and other religious organisations	11 (8)	13 (7)	24 (8)	.000

Source: Students' perceptions of their parents' educational values in Estonia, Finland and Russia in 2002-2004

students in Estonia, Finland and Russia what they thought their parents considered important in their upbringing (see Table 5.5.4).

Of the value groups, *moral values* (responsibility, honesty, etc.) are at the top of the hierarchy of parental educational values, according to the students of all the countries. Finnish young people consider the importance of moral values higher than young people in Estonia or Russia do. Moreover, in the opinion of Finnish students, their mothers' educational values differ from those of their fathers the least. Estonian and Russian young people assess their mothers' educational values to be higher than those of their fathers. Ethnic Estonians rate the moral educational values of their parents higher than Russians in Estonia.

The young people of all the countries that were surveyed believe that *social values* are important to their parents (finding friends, close human relations). The responses of Estonian young people, and even more those of Russian young people, reveal less readiness for openness, and sometimes also more carefulness compared to their Finnish peers. There are three times more respondents among Estonian Russians than among ethnic Estonians who believe that *friendship* is not important at all as an educational value for their parents. The same trend also appears more clearly in the appreciation of close human relations. Finnish young people consider *hedonistic values* (enjoying life, free self-realisation) to be significantly more important for their parents than Estonian and Russian young people do. Russian young people in both Russia and Estonia consider it less important than young ethnic Estonians do. *Free self-realisation* was considered important or quite important for their parents by 72% of Estonians, but only by 50% of Estonian Russians.

Young people in Estonia believe that *religious values* are of little importance to their parents; this applies especially to ethnic Estonian respondents (see Table 5.5.5).

The young people in Estonia and Russia consider *cognitive values* (broad knowledge, reading scientific literature) to be more important for their parents than do Finnish young people. The young people in all the countries believe that their parents place greater importance on *broad knowledge* than on the *ability to solve cognitive problems*.

It is conspicuous that the conviction of Estonian young people that *successful studies* are the most important cognitive value for their parents and lie in second place in the value hierarchy, outdoing the majority of moral and all the social values. In all the countries, mothers are considered to be more interested in grades than fathers. Finnish young people believe that their parents consider grades to be very important half as much as Estonian young people do. It is the latter difference that forces us to ask whether the worship of success, typical of early capitalist countries, is the driving force behind the knowledge-centeredness of Estonian schools, and what we can do to overcome this.

Although placing greater than average importance on knowledge at the expense of value education or social skills has usually been considered a school problem, the students perceive parental pressure in the same direction.

The role of the school in value education

In school life, the students' direct influencers are their teachers, who with their values, convictions, activities and examples are their primary value educators. Therefore, every teacher must critically reflect on his/her values – which values he/she is transmitting and forming in the students. The choice of study and grading methods depends on the values of the teachers, as does the way they communicate with their students and colleagues. It is in the power of teachers as value educators to stimulate an awareness of their values in the students, to provide them with the skill to reflect on their values, as well as to discuss and support the moral development of the students and the development of their personal moral codes.

In regard to value education in the schools, there has been a discussion for years about whether value education should be connected to a specific subject (study of religion, ethics, human studies, civics, etc.) or be integrated

in all subjects. Today, those preparing the new curriculum have agreed that value education can and will be dealt with in the course of teaching all subjects. At the same time, it is clear that different subject teachers have different opportunities to do so. When studying works of literature it is difficult to ignore the ethical struggles of the authors and their characters. In addition, when studying the nature of the state and society, human rights and civil duties are examined, and the various aspects of natural science direct students to ecological values. Human studies are taught in basic schools, in order to deal with people themselves, their development, opportunities for self-realisation, human relations, possible choices and their consequences. This subject is continued in family studies and psychology in the upper secondary schools. In these subjects, the emphasis on value competency is especially apparent, although knowledge and skills related to the development of personality can be conveyed in the framework of every subject, by connecting the acquisition of knowledge with the discussion of value issues.

Value education is not a "top to bottom" method of bringing up children, but rather a very complex multi-directional undertaking, which, in addition to time and attention, also assumes the freedom of thought and involvement. Even in the case of small children, the imitation of role models is just as important as commands and prohibitions, and as the personality develops, the awareness of values and reflecting on them becomes increasingly important. Another important factor is the impact of the environment – does the feedback it provides support the practice of positive values and the fixing of the behavioural inclination based thereon?[34]

The proponents of the personality education methods popular in the US (Schwartz 2008; Lickona 2009) have demonstrated convincingly that a great role in value education is also played by what happens outside of the classroom – which includes the school's traditions and communal activities. The relations that prevail in the school and the opportunities that the students have for extra-curricular activities and self-determination hold great importance. Since most value education, even in school, takes place indirectly, through an informal or hidden curriculum, the key question remains as to how to change the entire school culture or the atmosphere prevailing in the school.

The importance of value education has already been recognised in many Estonian schools[35]. A survey of the value education methods in Estonia's schools conducted by the Centre for Ethics of the University of Tartu demonstrated that the size or location of a school does not determine how much it deals with value education[36]. What is important is the school administration's directed, skilful and goal-oriented activity related to value education, and the cooperation with the school community. At the same time, achieving a more value-centred school cannot only be the concern of the administration or the teachers. The parents and definitely the students must also be involved in the network because their values are formed to a great extent by participating in school activities that are related to values.

The survey also provided important information regarding the needs of school administrators and teachers. Among the respondents 77% found they need training related to value education; they are short of relevant teaching materials and methodological support. The fact that half the school administrators considered there was insufficient time for value education is thought-provoking. In this regard, it is necessary to inform people that value education is not an additional obligation,

Table 5.5.4. The ten most important educational values of parents in Estonia, Finland and Russia based on the assessment of young people (ranking number)

Educational value	Estonia	Finland	Russia
Responsibility	1	4	1
Successful studies	2	–	9
Good manners and behaviour	3	5	8
Honesty	4	1	6
Cleanliness, hygiene	5	4	3
Broad knowledge	6	–	10
Diligence	7	–	2
Fairness towards other people	8	3	7
Friendship	9	8	–
Skilful use of money	10	9	–
Respect towards other people	–	6	5
Distinguishing good and bad	–	7	–
Order, skilful use of time	–	–	4
Enjoying life	–	10	–

Source: Students' perceptions of their parents' educational values in Estonia, Finland and Russia in 2002-2004

Table 5.5.5. Religious values of fathers based on the assessment of young people in Estonian, Estonia's Russian and Russia's Russian (Pskov) groups (%)

Value	Not important at all			Very / quite important		
	Estonians in Estonia	Russians in Estonia	Russians in Russia	Estonians in Estonia	Russians in Estonia	Russians in Russia
Belief in God	63	42	37	8	32	32
Teaching to pray	83	63	70	3	15	8
Activity in a congregation	76	62	64	5	16	11
Practicing religious matters	84	55	59	6	19	15

Source: Students' perceptions of their parents' educational values in Estonia, Finland and Russia in 2002-2004

[34] In a school environment, values can appear in two roles: as objects of cognition and discussion, or as virtues or practiced behavioural inclinations (Sutrop 2009).

[35] A sense of the various models of value education that function in Estonian schools is provided by the compendium entitled Values and Value Education: Choices and Possibilities in 21st Century Schools in Estonia and Finland published by the Centre for Ethics of the University of Tartu in 2009.

[36] The survey was conducted within the framework of the Ministry of Education and Research national value development programme in May 2009. More information about the methodology and results is available at http://www.eetika.ee/578666.

which has been added to the other activities necessary for a school to function. Rather, value education is something that inevitably accompanies all other activities and its successful implementation will bear fruit in all fields of activity. It is clear that conscious dealing with the topic of values increases the value competency of the parties involved, helps to understand one's developmental needs and gives meaning to one's needs. It also promotes responsible behaviour, personal opinions and adequate self-assessment. The schools that have made value education a priority find that such an emphasis results in increased interest in studies among the students and better study results.

Productive value education makes itself felt throughout school life and assumes the existence of trust and cooperation between the teachers, school administration, parents and students. It is important that the significance of value education is perceived in the same way, that it is discussed in connection with the curriculum; that values are integrated into various subject curricula; that attention is paid to the "hidden" curriculum and extra-curricular activities; that sufficient time is allocated to dealing with values; and that the bases for providing feedback and making assessments are worked out. Although every teacher helps to form a student's values – in a more or less conscious or considered approach – productive value education must be conducted comprehensively by involving the entire school community. It is important that one understands that value education must occur in school recurrently and constantly, that this is a process, the goal of which should be to learn to notice one's own values and those of others, to learn to discuss and reflect on values, to create the conditions for practicing values and to reflect on one's weak and strong sides.

Thus, one of the challenges facing Estonian schools is to become value-centred schools. This goal is also supported by the national programme entitled "The Development of Values in Estonian Society in 2009-2013" initiated by the Ministry of Education and Research and worked out under the direction of the Centre for Ethics of the University of Tartu[37]. At first, it is necessary to understand that value education is no less important than the delivery of knowledge – values and value education are the foundations of all education. Secondly, it is necessary to acquire the knowledge and skills to successfully carry out value education.

References

1. Bradshaw, J., Hoelscher, P., Richardson, D. (2007). An Index of Child Well-Being in the European Union. Social Indicators Research, 80(1), pp. 133–177
2. Henno, I., Reiska, P., Ruus, V.-R. (2008). Üldhariduse olukorrast hariduse tulevikukujundajatele. Riigikogu Toimetised, 18:, pp. 51–64
3. Hirsjärvi, S., Laurinen, L. (2004). Lempeästi mutta lujasti. Helsinki: WSOY
4. Hämäläinen, J., Kraav, I., Raudik, V. (1994). Perhekulttuurit ja vanhemmuus Suomessa ja Virossa. Kuopion yliopiston julkaisuja E. Yhteiskunnantieteet 16
5. Hämäläinen, J., Kraav, I., Bizaeva, A. (2002). Kotikasvatuksen arvot Suomessa, Venäjällä ja Virossa. Kuopion yliopiston selvityksiä E. Yhteiskunnantieteet 32
6. Lahikainen, A.R., Kraav, I., Kirmanen, T., Maijala, L. (1995). Lasten turvattomuus Suomessa ja Virossa. 5-12 vuotiaiden lasten huolten ja pelkojen vertaileva tutkimus. Kuopion yliopiston julkaisuja E. Yhteiskunnantieteet 25
7. Lickona, T. (2009). Tehke oma koolist iseloomu edendav kool. In: Põder, M., Valk, P., Sutrop, M. (eds.) Väärtused, iseloom ja kool: väärtuskasvatuse lugemik. Tartu: EKSA, pp. 254–286
8. Meri, L. (2001). Väikeriikide roll Euroopa kultuuriruumis. In: Riigimured. Tartu: Ilmamaa, pp. 238–241
9. Meri, L. (2007). Poliitiline testament. Edited by Toomas Hiio and Mart Meri. Tallinn: Ilmamaa
10. PISA (Programme for International Student Assessment). OECD. [http://www.pisa.oecd.org]
11. Ruus, V.-R., Veisson, M., Leino, M., Ots, L., Pallas, L., Sarv, E.-S., Veisson, A. (2007). Õpilaste edukus, toimetulek ja heaolu koolis. In: Veisson, M., Ruus, V.-R., Kuurme, T. (eds.) Eesti kool 21. sajandi algul: kool kui arengukeskkond ja õpilase toimetulek. Tallinn: Tallinn University Publishers, pp. 17–58
12. Schwartz, M.J. (2008). Iseloomukasvatus Ameerika Ühendriikides. In: Sutrop, M., Pisuke, T. (eds.) Mõtestatud Eesti – ühiseid väärtusi hoides. Tartu: EKSA, pp. 185–214
13. Sutrop, M., Pisuke, T. (koost.) (2008). Mõtestatud Eesti – ühiseid väärtusi hoides. Tartu: EKSA
14. Sutrop, M. (2009). Väärtused ja haridus ühiskondlikus kontekstis. In: Sutrop, M., Valk, P., Velbaum, K. (eds.) Väärtused ja väärtuskasvatus. Valikud ja võimalused 21. sajandi Eesti ja Soome koolis. Tartu: EKSA, pp. 50–67
15. TIMSS (Trends in Mathematics and Science Study). TIMSS & PIRLS International Study Center. [http://timss.bc.edu]
16. Toomere, T. (2001). Väärtusorientatsioonide muutused postsotsialistlikes riikides. Akadeemia, Vol. 13, No. 12 (153), pp. 2543–2562

[37] http://www.hm.ee/index.php?045145

5.6. The new media and peer culture

Some theorists (e.g. Prensky 2001; Bruns 2006 and others) see today's young generation through the prism of technology and new media, and thereby try to classify all young people under a common denominator. The Estonian media has also spoken from time to time about mystical "digital natives" that are contrasted with "digital immigrants" from previous generations, or simply about the "digital generation". Despite the variety of labels and differences of opinion regarding the age limits and possible size of the generation, the theorists are quite unanimous in their descriptions of the characteristic traits of the "digital generation". Such traits as openness, creativity, independence, innovation, cooperation-orientation, etc. are attributed to the members of the "digital generation". At the same time, it is assumed that young people who use new media are not passive readers and consumers of online content, but are both the users and creators of web content, by making a considerable contribution to the development of those web environments (e.g. YouTube, Twitter, Facebook and Wikipedia) that offer opportunities for user-led content creation. Therefore, it is assumed by default that the members of the "digital generation" are able to implement more effectively their knowledge, skills, creativity and will in various web environments than the representatives of all previous generations. Having grown up during an era of new media technology, the "new" generation should therefore be better adapted to the particularities of the virtual world and have a greater understanding of its internal functioning mechanisms than older generations.

The preconditions for the formation of the "digital generation"

"I believe that for me the digital world is just as familiar as working in the fields or dealing with something similar was for my grandmother", a typical Estonian youth of the "digital generation" admits in her essay "I Am the Digital Generation".

Of course, the charms of the virtual world are familiar to almost all young people in Estonia. Based on the data collected by the Youth and the Internet 2007 survey (N=713) conducted in 2007 among 11–18-year-olds in Tallinn, Tartu and Pärnu, 99.9% of the given age group use the Internet daily. In the context of 21 European countries, Estonia is considered a high-use country, in terms of Internet penetration among children and young people (Hasebrink et al. 2008). These indicators, which help to fix the vision of Estonia's success related to information technology, may generate the feeling that the young people in Estonia today can rightfully be called the "digital generation".

The credibility of the myth of a "digital generation" is bolstered by the fact that the majority of the respondents to the Youth and Internet 2007 survey spend at least three hours per day on the Internet – 30% of the respondents spend three hours in the expanses of the Internet and 28% spend more than three hours. Veronika Kalmus's (2008) analysis shows that active Internet use has been accompanied by a decline in the consumption of traditional electronic media channels – television and radio – among schoolchildren. On the other hand, the time spent reading newspapers and magazines and studying at home has remained constant from 2005 to 2007 (see Kalmus 2008).

Although the importance of the Internet has constantly increased in the lives of Estonian young people, one must take into account that, in addition to technological developments, the emergence of a possible "digital generation" has been impacted by various sociocultural factors. Despite the noteworthy developments in our society related to information technology, many of the thought patterns that function in post-industrial countries have not become fixed in the values and norms that prevail in Estonia. At the same time, the thought patterns and norms (e.g. gender stereotypes) that are popular in the society and are spread by peer culture also influence the practices that occur in the Internet environment.

In order to examine whether the content created by the Estonian young people in the web environments is so unique and innovative that it can be considered inherent to the "digital generation", I will briefly analyse which possibilities provided by the Internet have been discovered by Estonian youth. I will examine the online content creation practices of young people and investigate which resources the younger generation uses to construct their virtual identities on social networking sites.

Online opportunities

Like their peers in the majority of European countries (see Hasebrink et al. 2008), young people in Estonia use the Internet primarily for entertainment, communication, gaming, information search and educational objectives. Based on the Youth and the Internet 2007 survey, the most popular activity on the web by far was communicating via MSN messenger, which was employed by 97% of the young respondents. Young people were also very busy downloading films and music from the Internet (94%), sending e-mails (92%) and using search engines (92%; see Kalmus 2008).

Although many young people are quick to use web content and productions made by others, notably few among them have dealt with creating their own online content. The survey results show that Estonian young people create content primarily in web environments that are more structured and have limited possibilities (social networking sites, forums, news commentaries), where the creativity of the young people is constrained by various technological limitations. For instance, restrictions do not allow for various fonts or playing with colour gammas, or only allow for multiple-choice questionnaires to be filled out. Only a few web environments (such as blogs and personal homepages) provide the user with greater opportunities to implement their creativity and innovativeness without technological restrictions or clearly discernible pressure from the cyber community. Still, the results of the survey show that only a fraction of young people use those new media environments that provide, as well as require, greater creativity – 18% of the young respondents update their personal homepages and only 16% blog (see Kalmus 2008).

Based on an analysis of young people's content creation practices, one can assert that young people in Estonia predominantly create content in one or two online environments, which are usually constrained by the technological interface. The relatively passive online content creation habits are not explained by limited technical skills or knowledge, rather, Estonian "digital generation" mostly just lacks the motivation to create content in various web environments. This is asserted by 84% of non-bloggers and 79% of young people who do not have personal homepages. A lack of specific motivation and shortage of time primarily affect the online content creation practices of the older group of schoolchildren. On the other hand, younger children (11–13-year-olds) are more likely to engage in online content creation (see Kalmus 2008).

Compared to boys, girls mention the lack of time more often as a reason for non-participation in online content creation and they have a lower assessment of their computer and Internet skills (see Kalmus 2008). This is possibly the reason why slightly more young men are to be found among the more active content creator types (see Kalmus et al. 2009).

Research results provide a basis to conclude that in terms of the online usage-practices, Estonian youth are climbing the "ladder of online opportunities" (Livingstone, Helsper 2007). Initially, the Internet is used for plain information search, leading through game playing and communicating towards increasingly interactive activities. Only on the last rung of the "ladder", more creative activities and opportunities for more active participation in the civil society are discovered. In the spring of 2009, an analysis of essays written by the 10th-graders at the Pärnu Hansa Upper Secondary School (N=54) provides additional confirmation to the assumption that the majority of the members of Estonia's "digital generation" have yet to discover all the online opportunities. Despite the fact that many young people have successfully completed the information search, games and elementary online communication stages, the great majority of the "digital generation" has yet to progress from interactive socialising (MSN, chat rooms, Skype) to more creative opportunities.

Peer culture on social networking sites

For many Estonian young people, creating a profile in Rate, Orkut or Facebook is one of the few online content creation opportunities for which they have enough time as well as motivation. Social networking sites can even be given a role of a modern virtual playground. Through identity play tested on the profiles, the young create collectively perceivable limits around virtual communities, while at the same time, producing a peer culture that was previously created primarily in public playgrounds.

The results of an analysis of the Rate.ee profiles of 11–12-year-old children, which was conducted in August 2008, confirm that while playing virtual identity games, children creatively adapt the knowledge gained from the adult world to produce a peer culture of their own (Siibak, Ugur, forthcoming). By creating their virtual self-presentations, children both enjoy the power that is provided by taking on adult roles, as well as modify the rules of the adult world according to their standards. In their profiles, younger children often imitate the behaviour of older users of the site and try out a variety of adult roles in various illusionary games.

For instance, children play such socio-dramatic role games on the profiles, through which they can attribute to themselves greater positions of power and broader role specialisation than would be proper for well-behaved schoolchildren. For instance, we can classify the following statements of children into the self-expressive category of "rebellious youth": "IamwhoIamandifyoudon'tlike itpissoff", "tomorrow I will be decent, yeah right", "bettertoruinmyyouththannotouseit", "school, gasoline, match, bomb", "alcohol meter is zero, stupidity meter tops out at 100", etc.

Although the statements above illustrate the profiles of many young men and women, the textual self-expression generally tends to indicate gender differences based on traditional stereotypes. While 11–12-year-old girls name chocolate, the sun and strawberries as their favourite things, boys of the same age love much more "masculine" things like computers, money, cars, bicycles, etc. Noticeable gender differences also appear in mentioning their favourite pastimes – girls like singing, dancing, writing and drawing, while boys love to watch TV, to sleep or participate in sports.

There are also noticeable gender differences in the choice of profile photos children and young people post on social networking sites.

Visual self-presentation and stereotypical gender roles

Estonian young people are very well aware of the practices approved by the peer culture, and one's virtual identities are largely built upon peer pressure.

The results of the Youth and Internet 2007 survey indicate that both young women (56%) and young men (31%) consider looking good on their photos to be the most important criterion in choosing their profile picture. The same criterion also applied to the other profile owners – 85% of girls and 79% of boys found that looking good on your photos is the most important factor in achieving popularity on social networking sites. Girls also felt that the following aspects were important to achieve popularity: skill at photo manipulation (76%), a large social circle (72%) and great fame[38] (71%). On the other hand, boys felt that in order to gain recognition among other users, it is important to be sexy (74%) and to wear trendy clothes (70%) (see Siibak 2009).

The impression management strategies of the young are based upon calculated decisions to create a virtual identity that is acceptable to and approved by the specific online community. An analysis of the profile photos of the users who belonged to the popularity chart "TOP 100 Remarkable Women" (N=105) and "TOP 100 Remarkable Men" (N=117) in Rate.ee from August 2005 to February 2006 indicates that the impression-management choices of the young proceed from the "ideal man" and "ideal woman" images created primarily by the media and advertising industry. For instance, the poses

[38] The measurement of fame on the Rate.ee environment helps to measure how well-known a user is among other users of the site. Fame is visible on every user's form, under his/her user name (more information: http://www.rate.ee/fame.php).

of young women largely conform to the societal expectations of ideal female beauty (see Siibak 2007). The girls who had reached the top of the social networking site's hierarchy were mostly slim blonde nymphs who were quite scantily dressed.

The fact that on many photos (41%) young women try to tease and seduce the viewers by directly shifting their smiling gazes into the camera also gives testimony to the depiction of traditional gender roles. On the other hand, many young men (42%) turn their outwardly nonchalant gaze away from the viewer, offering themselves as ideal specimens in a display case, who have accidentally been caught by the camera. Virtual worlds have not brought about any decisive changes in traditional gender stereotypes also in terms of facial expressions. Most girls smile modestly on their photos (65%), while young men usually pose with serious expressions (46%).

At the same time, the analysis of profile photos revealed several similarities in posing strategies. The places Estonian young people chose to pose for their profile photos did not correspond to traditional role expectations. Both sexes preferred to pose in public places – 56% of the girls' and 67% of the young men's photos were taken somewhere in nature or in ordinary cityscapes. The most important thing for the youth was to exhibit themselves as the profile owner was mainly posing alone (73% of young women, 56% of young men) and inactively (83% of young women, 70% of young men), i.e. they did not wish to add extra meaning to their personas by showing themselves engaged in hobbies or activities. Based on these results, one can assert that inactivity, which has traditionally always been associated with femininity and women, has become part of the male behavioural pattern as far as photos on social networking sites are concerned. A large number of young men offered themselves on the photos as idealised viewing objects, while involvement in traditional masculine activities (such as sports) was used minimally for creating one's virtual self-presentation.

The results of the photo analysis show that the virtual self-presentation strategies of trend-conscious young men are making a shift from hegemonic masculinity to a more metrosexual type of thinking (see Siibak 2007). To win the approval of as many users as possible, young men combine stereotypical masculine traits with softer interpretations of masculinity that are considered "non-manly". Thus, one can find young men posing alongside a fancy car or in camouflage paint with a gun on their shoulder, as is typical of macho men who love traditional manly values (physical strength, financial success, autonomy, etc.). On other photos, however, a typical Mr. Nice Guy type is facing the viewer – a more romantic, caring young man who supports non-traditional masculine values, by smiling longingly at a sunset or petting the head of a kitten.

The stereotypical gender roles delivered by the traditional media were not only expressed on the profiles of teenage site users. The results of the analysis of the profile photos of 10-year-old Rate.ee users in autumn 2009 (N=303) vividly illustrate that younger children eagerly imitate the visual self-presentation strategies used by older profile owners, by trying to copy the same poses and facial expressions on their own photos. For instance, small girls also try to imitate the sensual poses characteristic to super models, while boys sit like grown men at the wheels of ATVs or cars. With the help of such illusory games, children experiment with various adult roles in the virtual world, which would not be proper for them to play in "real life".

The results indicate that, although, in the textual entries on their profiles, pre-teens tried to form the norms and rules established by their elders into something more appropriate for their peers, the same trends did not appear in the case of their visual self-presentation. Even though some examples of visual impression management strategies that teenage boys use give a reason to speak of the dissolution of traditional gender standards, the empirical results show convincingly that also in the new media environments young people mostly reproduce the thought patterns of older generations, as well as the value schemes and role expectations prevalent in the society.

Waiting for the "digital generation"

In May 2009, most of the 10th-graders from the Pärnu Hansa Upper Secondary School (N=53) called themselves representatives of the digital generation in their essays entitled "I Am the Digital Generation". The young primarily justified the attribution of member status in the "digital generation" to their abundant use of computers, mobile phones, digital cameras and MP3 players. Although the students' essays confirm that Estonia's young people highly appreciate the opportunities related to entertainment, communication and information search that are provided by the new media, the environments that support the creative development of personality and social involvement have not gained any noteworthy popularity among the young. In the light of the analysis of the essays, Estonian young people could rather be called members of the "comfortable generation", who are sincerely happy about the services provided by online commerce, e-banking and e-tickets, and think back nostalgically to the times when one had to visit the library in order to solve homework assignments. However, the use of search engines and e-services does not provide a basis to call oneself the "digital generation". In order for the "digital generation" to emerge, a change is required in the rooted mental structures of the society; a "new generation" will not be born solely on the basis of technological success or altered opportunities and institutions.

New media potentially provide lots of opportunities for updating old mental structures; however, this occurs only if the users are motivated enough to create new, innovative and creative content in web environments. Instead of trying to change and reinterpret the established values of the society, the online content creation practices of today's Estonian youth are characterised by re-purposing the values, norms and expectations from older media. At the same time, the re-accommodation and re-purposing of old structures is inhibiting the development of new media environments. In other words, instead of making the Internet into a place for creating new values, knowledge and attitudes, it continues to be used mostly for the reproduction of old value schemes. The lack of traits characteristic of the online content creation practices of the "digital generation" and the use of virtual self-presentation strategies that repro-

duce old values and standards do not give us the right to currently call Estonian young people members of the "digital generation".

However, based on studies, one can still state that new media environments have become self-socialisation environments for Estonia's youth. Through the textual and visual practices that function in web environments young people perceive the normative limits that exist in the new media field and in society as a whole. Therefore, the games played in web environments should not be viewed as totally useless pastimes or a waste of time, but also as activities that prepare children for life. The experiences that are acquired in the course of these activities can later be applied in life.

In order for the Internet use practices of Estonian youth to be considered inherent to the "digital generation", greater attention must be paid to the development of young people's digital literacy. First of all, work should be done to improve skills based on a critical sense, creativity, communication and cooperation.

References

1. Bruns, A. (2006). Towards Produsage: Futures for User-Led Content Production. In: Sudweeks, F., Hrachovec, H., Ess, C. (eds.), Cultural Attitudes towards Technology and Communication 2006. Murdoch: Murdoch University, pp. 275–284. [http://produsage.org/files/12132812018_towards_produsage_0.pdf]
2. Hasebrink, U., Livingstone, S., Haddon, L. (2008). Comparing Children's Online Opportunities and Risks across Europe: Cross-National Comparisons for EU Kids Online. London: EU Kids Online (Deliverable D3.2). [http://eprints.lse.ac.uk/24368/1/D3.2_Report-Cross_national_comparisons-2nd-edition.pdf]
3. Kalmus, V. (2008). Riskialtid tiigrikutsud: Eesti lapsed kui (uue) meedia kasutajad. In: Ots, L. (ed.), Uued ajad – uued lapsed. Tallinn: Tallinn University Press, pp. 35–62
4. Kalmus, V., Pruulmann-Vengerfeldt, P., Runnel, P., Siibak, A. (2009). Mapping the Terrain of "Generation C": Places and Practices of Online Content Creation among Estonian Teenagers. Journal of Computer-Mediated Communication, 14(4), pp. 1257–1282
5. Livingstone, S., Helsper, E.J. (2007). Gradations in Digital Inclusion: Children, Young People and the Digital Divide. New Media & Society, 9(4), pp. 671–696
6. Prensky, M. (2001). Digital Natives, Digital Immigrants. On the Horizon 9(5), pp. 1–6. [http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf]
7. Siibak, A. (2007). Reflections of RL in the Virtual World. Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 1(1). [http://www.cyberpsychology.eu/view.php?cisloclanku=2007072301&article=7]
8. Siibak, A. (2009). Constructing the Self through the Photo Selection: The Importance of Photos on Social Networking Websites. Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 3(1). [http://www.cyberpsychology.eu/view.php?cisloclanku=2009061501&article=1]
9. Siibak, A., Ugur, K. (forthcoming). Is Social Networking the New "Online Playground" for Young Children? A Study of Rate Profile in Estonia. In: Berson, I., Berson, M. (eds.), High-Tech Tots: Childhood in a Digital World. Charlotte, NC: Information Age Publishing

5.7. Summary

An analysis of the changes in values shows that the Estonian population is moving from survival values toward values related to self-expression. Although the family as a traditional institution has remained the most important sphere of life during the last decades under examination, the understanding of gender roles is becoming gradually more democratic, based to a greater degree on the principle of equal contribution. The importance of work as a sphere of life has not changed noticeably, but the expectations people place on work have become more diverse – in addition to good pay, greater importance is now placed on opportunities for self-realisation and pleasant relationships with colleagues. If we add to these trends the increased importance of leisure time and friends and acquaintances, the growing involvement in non-profit organisations, the increased importance of religion, the growth of trust in people and most state institutions, and increases in the indicators for happiness and satisfaction with life, we can speak about the enrichment of the Estonian population's cultural environment, about its diversification, and in certain aspects, about its becoming more post-materialist and more similar to West European countries. At the same time, some opposite developments – a perception of more authoritarian management in the workplace, alienation from politics and increased intolerance towards people with a different ascribed status – indicate that a certain depression, insecurity and lack of openness are evident in the Estonian society and its cultural environment. This still differentiates us from Western Europe and the Nordic countries.

Studies of pupils' values unfortunately confirm the transmission of the aforementioned thought patterns to the younger generation. Compared to their peers in Finland, Estonian schoolchildren are less hedonistic and feel that their parents place greater importance on transmitting values oriented to achievements and success while placing less importance on moral and social values.

However, some components of the Estonian population's cultural environment indicate that we are closer to the Nordic countries and differ from the other East European countries and those of Southern Europe. Such aspects include the popularity of cultural pastimes in the population, and to a certain extent, cultural participation. We can assume that the vitality of cultural traditions along with the strengthening of some manifestations of post-materialism (importance of leisure time and growth of involvement in non-profit organisations) helps Estonia

to stay in the Nordic cultural space with respect to cultural pastimes and consumption.

The pronounced difference in the values of men and women distinguishes us from other European countries, especially from Northern Europe. The value set of Estonian men is more one-sided and stressful as compared to women, being primarily focused on success and progress. Estonian women and girls place greater importance on the majority of the remaining values, including orientation towards a secure environment, the harmonious development of personality, and self-expression. Men's greater value scepticism and narrower orientation of their interests and ideals are also expressed by their lifestyles and participation in the cultural sphere. Women are more active in the majority of cultural and artistic fields of activity, while men have a greater interest in computer art, sports and technology. The research results do not allow us to argue that the sets of values and cultural habits of the two genders are becoming more similar to each other among the younger generation. We can assume that pronounced differences in the mentality of men and women, and the position of Estonia among the East European countries in this respect, result mainly from the after-effects of the Soviet period. In Socialist countries gender equality existed only declaratively, at the level of official rhetoric, without extending to the power structures or daily practices of society. In the ideology of Estonia's transition period, one could also perceive different expectations from the genders – women were primarily expected to maintain cultural traditions and reproduce the national body, while the hopes for rebuilding the country, economic growth and finding the "Estonian Nokia" were placed on the shoulders of men. It can be expected that the failure of goals related to success and progress, caused by the economic crisis, will have a more devastating impact on men's health and quality of life, since alternative ideals and interests that could provide support exist to a lesser degree in the value sets of men.

Young people believe that their parents and peers play the most important roles in the reproduction of the cultural environment – the transmission of cultural practices, values and norms. The amount of time spent in virtual environments and the nature of online cultural practices allow us to call the peer culture mediated by the Internet as the self-socialisation environment of Estonian youth. Although such an environment would allow young people to adapt and change existing ways of thinking, they tend to use it for the reproduction of values, norms and stereotypical gender roles. In the eyes of young people, teachers have a considerable role as value educators, but Estonia has yet to tackle the change toward value-centred schools and the establishment of value education as an educational priority. As a counterbalance to the cult of success cultivated by parents, and the clichéd images of the "ideal man" and "ideal woman" created by the media and the advertising industry and reproduced by peer culture, more attention should be paid in schools to social and moral values, to a critical sense and creativity, as well as the development of digital literacy.

CHAPTER 6

Environment for economic development

6.1. Introduction

In this chapter, we examine the changing development environment of Estonia's economy in a broader global context, as well as in the narrower context as the business environment in Estonia.

Rapid economic integration with the Nordic countries has been an extremely important factor in establishing a market economy in Estonia and the initiation of economic growth. However, at the same time, as the authors of the "Estonia 2010" project, which was completed in the mid-1990s, noted (see Estonia's development scenarios, 1997), there is a serious risk that Estonia could become a Scandinavian periphery, i.e. remain dependent primarily on the local economic-geographic context. The current economic crisis quite clearly demonstrated the negative sides of a peripheral economy. The global economy that will emerge from this crisis will probably be one with different geographical poles of economic power. For Estonia, this means it will face the challenge of connecting its economy more with new centres of power, such as China. Taking these new factors into account will probably mean that Estonia's position in the European economic complex will change.

In the treatment of the enterprises' business environment, we will examine Estonia against the background of other countries and turn our attention to the problems that emerge when economic development reaches the innovation-based stage, as well as the problems in Estonia's operating environment that have developed as a result of the current crisis situation. For instance, it turns out that no tax policy is universally ideal, but rather that tax systems must fulfil different functions during periods of growth and recession. By comparing Estonia's package of recovery measures to those of other countries, we will try to draw some conclusions about what is promoting and inhibiting our recovery from the crisis and the initiation of a new period of economic growth.

6.2. Changing international environment of the Estonian economy

The possibilities of growth for Estonia's enterprises and economy depend primarily on export opportunities and capabilities. In the next few years, significant changes will occur in the fields of international commerce, competition and the division of labour, for which we must be prepared – so that these changes do not become constraints, but rather opportunities we can make use of.

During the global crisis, both government and business leaders have set their sights at the relatively near future. At the same time, the changes that will impact Estonia's economic environment in the future, are significantly longer-term. It can be asserted that these changes were already underway prior to the crisis period, and the global crisis has accelerated the pre-existing trends. However, new developments may also arise.

We have led ourselves to become used to thinking that once the world economy recovers and free trading continues, the general environmental conditions will again be favourable for Estonian enterprises. This can be true in a very broad sense, but changes in the market potential of goods and services as well as in the international division of labour and competition, will create a new situation for Estonia. An increase or re-emergence in general demand in the world markets will not necessarily result in economic growth for Estonia. Everything depends on our target markets and business area choices, and how we act in prospective markets.

Post-crisis recovery of global trade

In 1990–2008, the volume of global trade more than quadrupled (Fontagne 2009: 27).[39] This was made possible by brisk globalisation, the spread of economic policies that are based on economic openness and liberalisation of the global economy, as well as developments in communication and manufacturing technology. From year 2000, the average pace of trade growth was 12% annually, reaching 15–16% in 2007–08 (WTO 2009: 8).

The global financial crisis that gained momentum in September 2008 caused a sharp drop in trade throughout the world. According to the International Monetary Fund, we are experiencing the greatest fall in international trade since the Second World War (IMF 2009: 1).

[39] Doubling occurs every 8-9 years

The drop-off of such magnitude has been caused by a concurrence of several circumstances (Cheung, Guichard 2009). First, there has been a general decrease in demand resulting from the financial crisis and the ensuing crisis in real economy across the world. Second, the immediate result of the financial crisis was the contraction of liquidity in financial market and a significant tightening of financing channels and opportunities. This directly impacted the availability of trade credits, which has a great impact in facilitation of trade flows.

The third reason has been pointed out to be the changes in the structure of trade flows during the last decade, from dominance of products that satisfy basic needs (food, raw materials resources, etc.) towards processed and industrial goods. The demand for the latter is the first to decrease during hard times – while there always remains a demand for basic goods and services (Beattle 2009). Fourth, due to globalisation most trade today occurs within value chains and when demand decreases for an end product or service, a domino effect causes the demand for intermediate products and inputs to be reduced (Godart et al. 2009: 118; Cheung, Guichard 2009). Its consolidated impact on changes in international trade volumes is considerably greater than just a reduction in the export of end products and services would capture.

There have been signals in the monthly indicators since the middle of 2009 that trade flows could be starting to increase again (WTO 2009: 3). Compared to the situation a year ago (when trade volumes were the highest in the last ten years), we may still view it as a decline (G20 2009: 6–7). A 12% drop is expected in total trade volumes for 2009 as a whole as the impact of global crisis (IMF 2009: 2). Thereafter, as a result of the stabilisation and stimulation packages implemented by various governments, an increase in demand and upturn in the economy could be expected, which should be accompanied by a recovery in related trade activities.

This recovery will be led primarily by the large emerging economies (China, India, Brazil, etc.), which continued to grow even while the crisis deepened, although their pace of growth also decreased significantly. After the crisis, the USA, European Union and Japan – the current engines of the world economy – will probably despite some signs of recovery not be able to make an equivalent contribution to the world economy for some time, due to their debt burdens and lacks in competitiveness.

In the next few years, the total growth of international trade will still probably lag far behind the averages of the last decade. Longer-term forecasts assert that at this low level, however, growth will be sustainable and constant. In this case, the total trade in the post-crisis world can be expected to double by 2025 (Fontagne 2009: 27).

Continuation of free trade and protectionism threats

The relatively optimistic forecasts are based on underlying assumption that no unexpected negative events will take place in world (e.g. terrorism, pandemics, global environmental catastrophes, etc) that could cause a considerable reversal in the openness and economic dynamics of various countries (ibid: 28).

In addition, it is assumed that, based on experiences of prior economic crises since the Second World War, the current crisis will not result in a more permanent decrease in the openness of international communications and trade, a rising distrust between countries, or a falling readiness to cooperate. To some degree, this is a very optimistic assumption in a situation where economic progress and the recovery of the (large) economic powers are far from certain. There are always great risks hidden in such circumstances that despite the initial good intentions, protectionism may be taken up in the name of protecting the domestic production, employment, profits and finances.

In September 2009, the secretary-generals of the WTO, OECD and UNCTAD sounded to the leaders of the G20 countries a warning on the continued threat of protectionism as an inhibitor of the recovery of economies and trade. They pointed out that some slippage toward decreased openness to trade has already occurred (G20 2009: 6). The nontariff barriers that have been implemented in the course of aid packages in the form of preferences for domestic companies (e.g. The "Buy American" and "Buy Chinese" clauses in the respective US and Chinese anti-crisis measures) are one example of this.

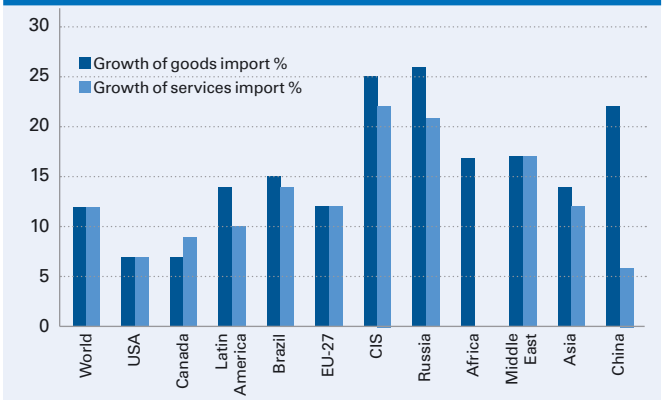
Protectionism by one country tends to cause protectionism on the part of other countries, which then results in an escalating decrease of openness and state borders becoming more closed to foreign trade flows. This may even result in "de-globalisation", or the termination of broader economic openness and trade relations, which has happened before – the last time during the Great Depression time (Quinian 2009). Immediately after the current crisis broke out, voices were raised that this process could be already underway (Beattle 2009).

However, today there is reason to believe that the feared boundary has not been crossed yet, leading the world economy to irreversible protectionism and restricted cross-border trade opportunities for everyone. A contribution towards this end has been made by cardinal agreements to inhibit protectionism that have been stated by the world's large economic powers within the framework of G20 forums. The currently utilised protection measures enacted by various countries have been assessed as conforming to the rules and principles of temporary market protection, allowed within the framework of WTO agreements.

In addition, the changes in global division of labour have during the last decade gone so far that it would be difficult for the world's countries to significantly withdraw from openness. This is especially true for the former developing countries that have significantly increased their importance in world trade and thereby their wealth and wellbeing, by expanding their participation in international value chains and related trade. The termination of globalisation would clearly not be in their interests (OECD March 2009). This can be the reason why the establishment of trade barriers by the US for steel products and tires coming from China, has not yet provoked any counter-protectionist response from the latter (The Economist, 22 October 2009). At the same time, the Western countries have also reached the situation that they cannot create sufficient wellbeing without openness to trade through the division of labour that occurs within the global value chains.

Therefore, there is basis to be optimistic that protectionism will be avoided and openness maintained. How-

Figure 6.2.1. Growth of imports in world and selected countries-regions between 2000-2008



Source: WTO International Trade Statistics 2009: 8

ever, the threat is not gone until the crisis is over. In the analyses dealing with future scenarios of world economy and trade, protectionism has continued for this reason to be the primary unknown and most feared factor that could unleash negative developments (for example, UK Foresight 2008; UK Government Office for Science 2009).

Even if protectionism should become widespread, this would not necessarily result in the complete stagnation of international commerce. To date, world trade has grown primarily due to growth of trade within regional trading areas. For instance, 2/3 of the trade of the EU member states occurs within the borders of the EU with other member states (European Competitiveness Report 2009: 62). In the time of overarching protectionism, trade and division of labour within such regions would just become more important, which implies the principal continuation of key export opportunities.[40] Such conditions could well open up new opportunities for Estonia as an EU member to increase exports within the framework of the internal market, since incoming competition from outside the EU would be reduced.

A country's possibilities for increasing export and developing its companies would be determined by which regional trading bloc it belongs to or which it succeeds in joining (e.g. when new ones are established). Today, the EU is the largest regional market in terms of total market volume. Yet, when considering future growth potential, it is important for Estonia to preserve access to distant (regional) and fast-developing markets. In an era of region-based protectionism, this would be significantly more difficult, unless the EU and Asia as well as other developing countries, were to separately develop reciprocal trade and openness through some new agreements.

The greatest market opportunities lie in emerging economies

During the last decade or two many former developing and transition countries, which have jointly become known as emerging economies, have been able to significantly increase their roles in global trade and the division of labour. Thereby, they have been able to very quickly increase their incomes and trade and enjoy economic growth. In addition, they have a relatively great domestic market potential based on their population dynamics that determine the market sizes. The Figure 6.2.1 indicates that among others, the BRIC countries, i.e. Brazil, Russia, India and China, as well as the CIS region, have increased their imports most.

This has caused significant geographical shifts in international trade flows. For example, the Western industrial countries are increasingly selling their goods and services to these emerging economies.[41]

Many longer-term forecasts for the economic growth of regions and countries show that these trends are strengthening. If the Triad (Western countries plus Japan) were at the centre of economic growth in the 20th century, then from hereon, greater market growth (i.e. increases in domestic economies, incomes and demands) will come from countries that are located east and south of the Triad.

Looking toward 2020, Goldman Sachs has forecast that the economies of the developed countries (primarily the OECD member states), and especially Western Europe, will play a significantly less important role in the gross output of the global economy (see Figure 6.2.2). It will be mainly the BRIC countries that will increase their relative importance. This is especially true of China, which may overtake the US as the world's largest economy already in 2025 (Goldman Sachs 2007). Based on a slightly later forecast by PricewaterhouseCoopers (PWC), this would not occur until 2027, but it is a negligible difference considering the length of the projections (see Hawksworth and Cookson 2008: 2). In addition to the four BRIC countries, the best growing export opportunities are to be found in Korea, Turkey, Indonesia, Mexico, Vietnam, Malaysia, South Africa, Argentina, Poland and other such emerging markets.

According to the PWC forecast, the seven largest emerging economies (the BRIC countries + Indonesia, Mexico and Turkey) would be growing two to three times faster on average than the seven largest economies to date (G-7 or the US, Great Britain, Germany, Japan, Canada, Italy, France) (Hawksworth, Cookson 2008: 2). The European Commission is anticipating that relatedly the share of the developing world, i.e. the emerging economies and developing countries, will increase from one-fifth in 2005 to about one-third in 2025 in world commerce as a whole (Decreux et al. 2009: 320). The increase in this share implies an increase in importance – and a shift in the relationship between the global market's growth centres and market potential, as well as changes in the geography of markets and trade.

All the cited forecasts were compiled before the beginning of the current economic crisis. Nevertheless, this crisis has not negated these conclusions or forecasts. In fact, quite the opposite. Based on the faster recovery of economic growth in Asia, Latin America, the Middle East and Africa, and the relevant faster recovery of for-

[40] See as the example of such kind of international division of labour and organisation of commerce a scenario entitled "New Powers. New Alliances" envisioned in UK Foresight,2008.

[41] See the table of exports flows between various regions of the world, World Trade Organisation, International Trade Statistics (WTO ITS), 2009, p. 9.

eign trade, it seems that these prior forecasts will become a reality earlier than previously thought. The latest International Monetary Fund and OECD short-term economic forecasts from fall of 2009 indicate that the developed countries (and also the CIS) continued to decline in 2009, while growth of a few percentage points was already discernible in the rest of the world. The developed countries may start to grow again in 2010, but they will grow many times slower than the emerging economies, especially the BRIC countries or also the CIS (IMF October 2009).

Naturally, the faster growth experienced by the emerging economies results to a great extent from the fact that growth from a lower comparative level is always faster. In respect to absolute volumes, the developed countries will continue to be important target markets, since the total volume of the BRIC economies will still comprise only about 50% of the total volume of the G-7 economies by around 2020. Although this is changing rapidly, the current developed countries will continue to be wealthier, i.e. the absolute level of their market potential as expressed by purchasing power will still be higher.

Therefore, the developed markets are not going to disappear, and they will still be attractive for their size and their purchasing power, providing additional opportunities for Estonian companies. However, since this growth will be slower as compared to the rest of the world, new business opportunities in the developed markets will arise mainly only out the redistribution of market shares based on competition, resulting in a tougher competitive environment, or at the level of niche markets.

In the forthcoming decade, the growth of the population's purchasing power will be fastest in East and Southeast Asia as well as in the CIS and East European countries (see Figure 6.2.3). It is this relative difference in growth rates that will attract internationally operating companies and will turn the trade flows in the direction of the above regions. The existing supply, let alone the local one,l would not be able to meet the increasing demand. Therefore, it is more probably to achieve additional business growth significantly faster there than in the developed markets. This means that the greatest additional opportunities and market potential will be in the countries that differ and are further away from the today's basic markets of Estonia's businesses.

These described potential developments could be overturned by a significant rise of protectionism, or the emerging economies stumbling on political and/or economic instability arising from some domestic (e.g. social and environmental) problems. At the same time, it is improbable that such instability would develop simultaneously, and to the same degree, in all the emerging markets. Consequently, business growth and export opportunities will overall still continue to be found primarily outside the developed countries in the years to come.

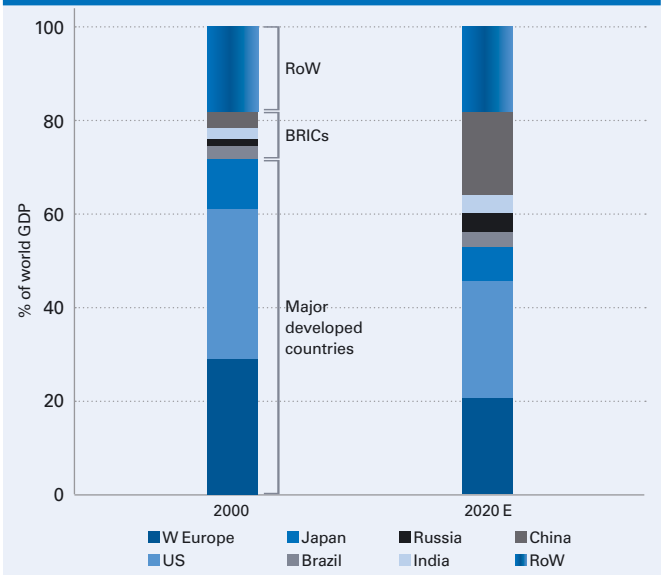
New and recovering goods and services markets

The total volume of international trade is comprised mainly of export and import of goods – with a share of 81% in 2008 – and this share has remained about the same for a long time.[42] The majority of international business has conducted in areas of capital and durable goods. In 2000-2008, the annual average growth of this trade exceeded the growth of other types of goods 1.5 to 2 times.[43]

The main reason for it has been the long-term growth of global wealth that has reduced the demand for basic goods and commodities (including agricultural and mineral products), although the latter are still significant by their total share (World Trade Report 2009: 17; see also WTO ITS 2009: 33).

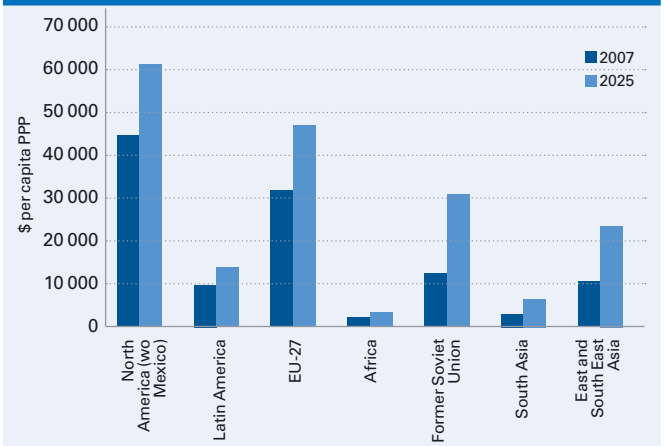
During the global crisis, the export of capital and durable goods has decreased significantly as a result of the decline in investments and general demand, including particularly for cars, iron and steel, and electron-

Figure 6.2.2. Share of global GDP by region 2000 and 2020 (forecast)



Source: Goldman Sachs 2009: 8

Figure 6.2.3. Evolution of GDP per capita at purchasing power parity for selected regions in 2025 vis-a-vis 2007

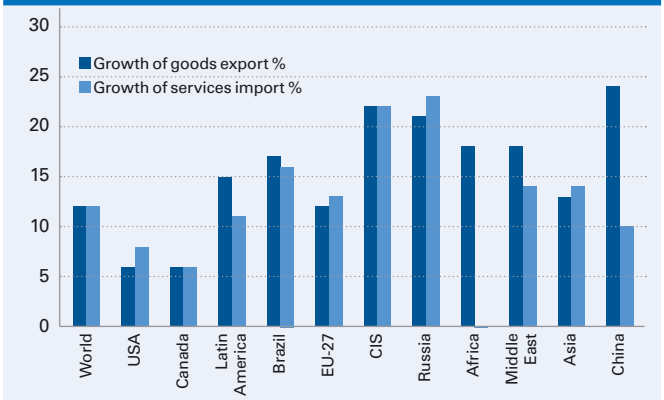


Source: Decreux et al. 2009: 322

[42] Calculations based on the table in the WTO, 2009 p. 8.

[43] Calculations based on the data of the WTO ITS, 2009, p. 7.

Figure 6.2.4. Growth of exports in world and selected countries-regions between 2000-2008



Source: WTO ITS 2009: 8

ics (UNCTAD 2009: 18–19 and WTO ITS 2009: 3). The demand and trading opportunities for these goods can be expected to pick up soon again, following the expectations of resuming growth in large developing countries - the emerging economies - as such trade always accompanies fast growth. In addition, a strong demand for energy products will continue in the rapidly growing markets that do not have sufficient energy resources themselves (especially in Asia).

At the same time, based on the increases in living standards of the more backward economies, new large markets will develop for the providers of basic goods and services (European Competitiveness Report 2009: 29; Goldman Sachs 2009: 14–16). Their current markets in the so-called "Western countries" are flooded with competition and demonstrate very slow growth. Among other things, new opportunities can be expected for the producers and sellers of foodstuffs, especially considering the demographic situations of large emerging economies (including China and India) and the constraints of their domestic food resources and production potential.

In the conditions of continued overall global wealth growth, the fastest rises can be expected in the demand for various services. To date, services have comprised only a small part of international commerce. Most services have not been internationally tradable due to the nature of the service or restrictions established by various countries. For instance, by far most international trade agreements currently deal with the liberalisation of the exchange of goods mainly.

A significant change is to come in this regard during the next few years, when large-scale reductions will be made in the restrictions on trading in services at the WTO and also EU levels. This will result in significant new and currently little-used opportunities suddenly opening for countries and companies to significantly raise the trade and exports services, including in new fields such as health-care, educational and others services.

In 2008, exported services in the world were divided as follows: 51% business services, 24% transport services, and 25% tourism (WTO ITS 2009: 121). During the last decade, the share of business services in total exports of services has increased by about 10%, and the share of tourism has decreased by a corresponding measure. The share of transport services has remained about the same, although it has recently decreased somewhat during the current global crisis due to the decrease in the general commerce-related transportation of goods.

The general recovery of world economy and trade will definitely be accompanied by a recovery in the trade of transport services, although the expected long-term price increases of energy resources will significantly change the nature and business models of these services (e.g. to increase energy conservation and efficiency). The liberalisation of general trade in services together with continuous increasing specialisation and exchange of goods within value chains should also bring about the continued rapid growth of trade in business services.

Such growth potentials in goods and services markets provide many opportunities for Estonian companies in their traditional business fields as well as in new fields, and especially in relation to service provision. However, it pays to note that in all these areas the greatest opportunities are to be found primarily in new and unknown markets, and mostly in the emerging economies. Therefore, in order to participate in the greater market opportunities for goods and services, there is a need to focus on new target markets. This in turn requires actions (e.g. business models) that differ from the past and prepare for stiffer international competition.

China, Asia and the emerging economies will rise to the forefront of global competition

During the 1990s, most business was conducted within the so-called Triad region, between Japan, the US and the European Union states.[44] Today, other players have appeared in the competition among the world's largest export countries – here again mainly as the BRIC countries, i.e. Brazil, Russia, India and China (European Competitiveness Report 2009: 61–62). Based on faster growth of their export capability and volumes compared to the Western countries, exports from the BRIC countries, the former developing countries (including the famous "tigers" of Southeast Asia) and the CIS countries have flourished (see Figure 6.2.4). The growth of China's relative importance has been particularly noteworthy – it became the world's largest exporter of goods in 2009 (Atkins 2010).

The primary cause for these developments has been in changes in the international division of labour and competition. Since the 1980s companies (from the Western countries mostly) started to transfer their labour-intensive manufacturing operations to countries with cheaper labour, or to purchase from them. The aim was to benefit from the differing production cost conditions in these countries and achieve a competitive edge there-by. The developing countries first started to export consumer products that were assembled there and then moved on to exporting industrial and capital goods. Today, even services related to manufactured products come from there.

Companies also started doing more final assembly work or providing end services closer to the end consumer

[44] The concept of the Triad and the trade based thereon was established by Kenichi Ohmae, see Ohmae, 1985.

in order to reduce (logistics) costs and make the provision of goods and services more flexible (and closer to markets and clients). The faster the emerging economies grew, the more the execution of such end-phase functions was transferred to these fast-growing markets and to their vicinity.

This process has by now reached a point where the manufacture of goods and provision of services has been dissembled into bits that are distributed throughout the world – starting from the production of raw materials or initial ideas, and ending with delivering to the clients the finished goods and supplementary services.[45] Each of these individual activities in the chain is called a business function.

The principal role of the traditional industrial countries with more expensive cost bases has been in the international value chain to manage the whole chain or execute more complicated business functions, i.e. those that require more specialised and greater skills and knowledge (e.g. brand development and product development). This is reflected in the fact that the EU countries and the US together has been providing 60% of world's exports of business services, i.e. the most complicated parts of the value chain (WTO ITS 2009: 3). The same is reflected in the reciprocal trade between the EU and BRIC countries, in which the exports from the EU to the BRIC countries comprise goods and services that are based on functions with greater added value.

However, an analysis of trade trends indicates that the situation is changing. The Asian countries, and especially China, are competing in the EU and other developed markets by providing more complicated goods and services and performing increasingly valuable intermediate jobs (European Competitiveness Report 2009: 63–67 and 71–72; also Simpfendorfer, FT 29 June 2009). Even research and development and innovation activities, which have previously been jealously guarded by companies' (Western) headquarters, have started to be internationally dispersed to and purchased from these same emerging economies.

In addition, the companies from these countries are increasingly winning competitive positions and market shares for their goods and services in internal Asian export flows and those directed toward the Middle East.

As a result, the international competitive environment has become significantly more intense and diversified.

In order to survive in such a competitive situation, make use of the new opportunities or even to simply keep performing subcontracting in international value chains, Estonian companies must be able to develop and maintain competitive advantages that are based on flexibility, specialisation, knowledge, innovation and high productivity. At the same time, opportunities will remain of servicing the largest regional markets in the vicinity (for Estonia, this includes Western Europe and Scandinavia as well as Russia) as a regional production and service centre. This will particularly be the case for niches of non-standard products with large transport costs, the manufacture of which is not financially expedient in cheap but distant countries as rising energy prices would inevitably increase transport costs.

The addition of new countries and companies to international competition and their shift to a higher position in divisions of labour could also provide for Estonian enterprises new opportunities for cooperation with these companies, and in the values chains managed by them (including in the form of subcontracting). Chinese, Brazilian, Indian and other such companies are interested in entering wealthier developed markets, for which they need local partners (especially for development work and the provision of additional services) and a local manufacturing base. In addition, these future "new global leaders" are always interested in new technologies and knowledge, which creates additional opportunities for correspondingly strong and capable companies from throughout the world.

Problems and opportunities for Estonia related to the rise of China

Today, it would be wise to take action and formulate strategies that take into account the ascent of the Asian countries and primarily China[46]. Therefore, we will hereafter examine from different angles the impact of the further growth of Chinese economy on Estonia's economy, by studying the risks and threats as well as prospective market opportunities and competition.

Estonia's current exports to China are quite small – less than 0.8% of Estonia's total exports in 2009, with quite a large part being comprised of raw materials (poplar pulp, fish, old paper, etc.). However, could China be a target country for the export of Estonia's end products? China's economic growth is accompanied by an increase in domestic consumption for both capital goods and consumer goods. Opportunities definitely exist here, if we are able to find the proper intermediation channels. Currently Estonia's presence in China is minimal. Thus we cannot yet speak about knowing the local market or working with it. We would also have to be able to guarantee sufficiently large production volumes.

However, according to international forecasts, the goods that China currently imports will be increasingly manufactured in China or in developing countries with even lower cost bases (in Asia and Africa). For some companies the sale of only a few large product lots to China could mean unprecedentedly large volumes and a profitable business. Nevertheless, it is a risky business as it is hard to establish a clear competitive advantage for products manufactured in Estonia, which could be sustained even if production would get eventually transferred to China or replaced by imports from other countries. If an Estonian manufacturer itself were to transfer its production to China – such ideas are already being discussed in Estonia in some firms – it would have to seriously consider the risk of being deprived of its competitive advantage (if this is technological) by local copying. This means that intellectual property would have to be carefully protected for the export potential to be realised.

[45] Olivier Godart (see Godart et al., 2009, pp. 120-121) brings references from other works of examples of how the "American car" at the end of the 90s and the production of the iPod in the middle of the 2000s was globally distributed and to what extent various countries and regions added value to the value chains of these products.

[46] A positive step is undoubtedly the opening of the Enterprise Estonia representation in Shanghai.

If the company that transfers its manufacturing to China is a foreign-owned company or international corporation hither-to operating in Estonia and using the country as a one production platform among others, Estonia will be an unequivocal loser. Jobs, business and export will all disappear.

Let us now look at three further foreign trade aspects related to China, which are important for Estonia.

First, Estonia as the provider of value added for goods moving from China to the EU. Actually, such business ideas have already been discussed in connection with the plans to establish a container terminal or terminals in Estonia for goods coming from China. If activities in Estonia would be limited to receiving the goods at the port for short-term warehousing and transit shipping, there will be few opportunities for providing supplementary added value to the cargo flow. However, if we would be able to adopt a distribution centre-type business model, the prospects of adding value in Estonia will improve. The possibility in this case would be to repackage goods, deliver just-in-time consignments, perform various intermediate operations, etc.[47] From here it would be only one step to the adaptation of received flow of goods for consumers located in the vicinity region, which would include operations typical of industrial production. In relation to this, one possibility could be to attract foreign investors from China to induce them to establish such value-adding operations and companies in Estonia, if we ourselves are short of the necessary capital, skills or will.

To date, the goods that have arrived from China to Estonia in containers have been headed primarily for the Russian market. However, if we would be able to insert industrial operations in the value chain, we could start to focus on goods intended for the Nordic market as well as the EU market as a whole. After all, China and the other emerging economies are increasingly striving towards these markets. Estonia as a country less expensive than the Nordic ones has a certain competitive advantage in adapting or finishing goods for the consumers in those markets and providing them the related services (including follow-up services, even maintenance). Our close-by geographical location and close economic relations may be an additional plus and provide an advantage over our East European and Baltic neighbours. It is also important here-by that the so-called country of origin problem no longer exists after China's integration into the international trade system, contrary to previous times.

In fact, we already have some small-scale experiences in such described business, e.g. the design and production of smalland medium shipments of curtains for Finnish and Swedish consumers from fabric arriving from China in the Kreenholm factory in Narva.

Next aspect would be China as Estonia's competitor in exporting to markets in third countries.

Estonia has already felt the serious competitive impact of Chinese goods, for instance in the production of textiles, a large-volume branch of industry that has essentially ceased to exist in Estonia. This is also true in the export of rare earth metals, where Silmet's main competitors in the international market are Chinese companies, and in the production of table tennis paddles in Narva, and other cases.

A study conducted by the economists at the University of Tartu in 2007 (Eesti majanduse... 2007) revealed that, as of 2000, Estonian goods were still competitive in many cases with goods manufactured in East Asia if the impact of transport costs was taken into account. However, by 2005 the situation had changed. Due primarily to increases in salaries and the cost of other production inputs in Estonia the situation became hopeless in many business areas with the only solution being to withdraw from the markets in which similar East Asian products were available.

The current economic situation is forcing us to reduce production costs now. Yet, it would be illusory to believe that this will happen on a scale sufficient to restore competitiveness for Estonian-produced goods that are similar to Chinese goods, considering China's rapidly increasing productivity and technological capabilities.

The impact of China's increased competition on Estonia's exports would deserve comprehensive analysis, but we hereby examine only in general terms the situation in two markets that are most important to Estonia – Finland and Sweden (see Table 6.2.1). The focus is on how much of China's exports to these two countries are directed at the same sectors as Estonia's exports, and how the market shares for the Estonian goods have been affected as a result.

Among Estonia's exports to Finland there are four product groups that have strong positions in the Finnish market (more than 5% of total imports in the corresponding product groups) and which have demonstrated growth in market share during the period of last years. These are: dairy products, fish products, prefabricated buildings and furniture. Of these, it is only in the dairy market that competitive products from China do not exist. Based on the table, the competition in fish products is apparently weak, but quite strong in the two remaining groups (prefabricated buildings and furniture). In apparel, fabrics, footwear, leather products, metal products and wood products (except furniture), Estonia still has a significant market share in Finland. However, in the period from 2002 to 2008, Estonia's market share in all these product groups has decreased and China's relevant export produce volumes to Finland have increased dramatically. With the exception of apparel, Chinese exports already exceeded Estonian exports to Finland in 2008 in all groups of goods under observation.

In the Swedish market, Estonia has a significant share only in wood materials and wood products markets and to a slightly lesser degree in furniture market. However, in the Swedish furniture market, China already has a significantly larger market share than Estonia, and has also a comparable share of Swedish wooden products market.

Export volumes significant for Estonia could be also mentioned in relation to such product groups as electrical equipment and machinery, telecommunications equipment, industrial equipment and energy production equipment. In most of these product groups, China has already surpassed Estonia in both the Finnish and Swedish markets.

[47] As demonstrated by the experience with the Kuovola region in Finland, in addition to transport and warehousing services, it is possible to develop wholesaling related to Chinese goods based on a warehousing complex that is located at a transport junction.

Table 6.2.1. Competitive position of Estonian exports in most important product groups in Finnish and Swedish markets compared to goods imported from China

SITC code	Selected product groups of SITC classification	Finnish imports				Swedish imports			
		Estonia's share 2008	Change since 2002	China's share 2008	Change since 2002	Estonia's share 2008	Change since 2002	China's share 2008	Change since 2002
		%	%-points	%	%-points	%	%-points	%	%-points
01	Meat and meat preparations	0.85	0.85	0.01	0.00	0.16	0.16	0.01	0.01
02	Dairy products and birds eggs	9.72	9.72	0.00	0.00	0.24	0.24	0.00	0.00
03	Fish crustaceans, molluscs, prep. thereof	6.63	4.29	1.38	1.13	0.28	–0.30	2.46	1.46
04	Cereals and cereal preparations	2.40	2.21	0.10	–0.11	0.56	0.29	0.34	0.19
24	Wood and cork	7.95	–4.00	0.06	0.05	9.49	–2.06	0.32	0.29
27	Crude fertilisers and crude minerals	0.97	0.34	1.01	0.20	0.09	–0.17	3.03	1.37
53	Dyeing, tanning and colouring materials	1.04	0.85	0.61	0.50	1.70	1.03	1.15	1.06
56	Fertilisers (excl. those included elsewhere)	0.32	–6.94	0.23	0.22	1.11	0.92	0.02	–0.04
58	Plastics in non-primary forms	1.91	1.24	1.40	0.85	0.42	0.27	1.13	0.92
59	Chemical materials and products	0.30	0.18	1.74	0.76	0.07	0.07	0.98	0.41
61	Leather, leather manufactures and dressed furskins	6.99	2.14	17.30	14.31	0.23	–0.14	25.87	22.57
62	Rubber manufactures	0.51	0.04	4.63	4.10	0.32	–0.29	2.70	1.70
63	Wood and cork manufactures, excl. furniture	16.94	–4.96	7.03	3.94	7.63	1.81	7.08	2.29
64	Paper and paperboard, articles thereof	1.38	0.58	1.36	0.84	0.30	–0.57	1.95	1.64
65	Textile yarn, fabrics, made-up	3.97	–0.01	6.72	4.28	1.60	–0.56	8.00	5.13
66	Non-metallic mineral manufactures	4.76	1.50	6.65	4.05	0.61	0.00	7.51	4.39
69	Manufactures of metal (excl. those included elsewhere)	5.05	–0.19	9.87	5.66	0.76	–0.23	0.50	5.43
71	Power generating machinery and equipment	4.38	0.73	2.39	1.59	0.25	–0.01	1.25	0.26
72	Machinery for particular industries	2.97	1.26	3.84	3.26	0.38	–0.03	3.13	2.60
73	Metalworking machinery	0.69	0.54	2.83	2.05	0.21	–0.08	1.27	0.76
74	General industrial machinery and equipment	4.25	2.70	3.61	2.46	0.63	0.27	2.91	2.13
76	Telecommunications, sound recording and reproduction equipment	0.79	–14.23	36.37	23.71	1.57	–1.30	10.69	6.97
77	Electric machines, apparatus and appliances	4.49	2.13	15.41	6.38	1.44	0.60	5.16	2.59
81	Pre-fabricated buildings, sanitation, heating and lighting fixtures	12.45	9.15	17.64	5.39	0.88	–0.56	26.09	12.03
82	Furniture and parts thereof	19.54	1.67	11.31	7.98	2.60	–0.69	16.62	11.23
83	Travel goods, handbags, and similar containers	3.30	–0.64	54.52	12.47	1.26	–0.48	28.37	6.70
84	Articles of apparel, clothing accessories	5.72	–4.66	35.71	16.96	1.26	–1.90	21.14	10.93
85	Footwear	5.90	–3.85	31.29	15.03	0.51	–0.34	17.75	11.73
	TOTAL of all product groups	2.21	–0.48	7.00	3.49	0.69	–0.28	3.48	1.71

Source: Finnish imports data from the Finnish Customs Board database: http://uljas.tulli.fi/; Swedish imports data from the Swedish Statistics Office database

Therefore, we should not only acknowledge China's stiff competition in our neighbouring markets, but actually it has created a very strong competition in most product groups that are important to us in terms of our economic structure and exporting sectors. This does not mean that Estonia should necessarily withdraw in the majority of these sectors from Swedish and Finnish markets – there is a very broad spectrum of possible products in each product group. Yet, it does show that Estonia must definitely consider the Asia-born competition in the future specialisation of its industry and the reorient the specialisation profiles of its companies, or even better its clusters, accordingly.

Based on the above, three policy-related conclusions can be drawn:

First, considering the importance of China and the other large emerging economies (India, Latin America, Russia, and Kazakhstan) in the upcoming and hopefully post-crisis period in the global economy, it is extremely important to increase the knowledge of Estonian companies, as well as of the shapers and implementers of economy policy, about these currently unknown markets, business cultures, cooperation opportunities, etc.. Naturally, it is not possible to be simultaneously active and successful in all these prospective directions. Therefore, it would be useful to determine an economic-geographic interest focuses for Estonia and to promote business contacts in these directions at the state level.

Second, the price and speed of transporting goods to and from China depends on which means and which transport corridor will be used for the large-scale trade flow between China and the Baltic Sea Region. If future trade flows will move by large, regularly scheduled container ships – using the largest ships that can enter the Baltic Sea and at least partially unloading them at Estonia's deepwater ports – the transport situation will change rad-

ically for Estonia.[48] It would then be significantly cheaper to obtain Chinese goods for further processing in Estonia and also significantly cheaper to procure container transportation for the export of goods moving from Estonia to China (the reloading of empty containers). In other words, the existence of large-volume transit corridors and the development of necessary logistics in Estonia will give our exporters an important competitive advantage factor. Of course, this would not apply only in relation to China. For instance, an important role in the enlivening of Estonian export could also be played by the regular shuttle train service being organised by Estonian Railways between Tallinn and Alma-Ata.

Third, it will be extremely difficult for individual Estonian companies to become successful exporters in Chinese market on their own as exporters, because almost all of them lack the necessary knowledge, contacts and channels. A solution would be the participation of Estonian companies in clusters of companies that cooperate with China and export to China. The advantage of this opportunity is that Nordic countries, especially transnational corporations, have initiated activities in similar directions some time ago and are developing them with great motivation and intensity. Therefore, our companies could perhaps join their cooperation networks that are already functioning.

Certain opportunities, which could help Estonia become better connected to Nordic clusters, could arise under the Baltic Sea Region Strategy that has been initiated through EU. Unfortunately, , Estonia has been assigned the task of taking the lead of reducing trade barriers within the Baltic Sea Region during the implementation of this strategy. Although the reduction of barriers that remain within the EU is also very important, considering the shifts taking place in the world's economic geography, it would be even more important to participate in the global projects of international companies and taking the lead in this area.

References

1. Atkins Ralph, „China to Overtake Germany as Biggest Exporter", Financial Times, 09.01.2010
2. Beattie Alan, „Protectionism is Waiting to Exploit Economic Weakness", Financial Times, 27.01.2009
3. Beattie Alan, „World Trade: Turnaround in Global Commerce Defies the Doomsayers", Financial Times, 05.10.2009
4. Cheung Calista and Guichard Stéphanie, Understanding World Trade Collapse, OECD Economics Department Working Papers No. 729, 30.10.2009
5. Decreux Yvan et al., "The World in 2025: Economic Projections with the MIRAGE model", European Commission, The World in 2025, January 2009.
6. European Competitiveness Report 2009, European Commission, 01.12.2009
7. G20 Report on Trade and Investment Measures, 14.11.2009
8. Godart Olivier et al., „Back to Normal? The Future of Global Production Networks", Kiel Institute for the World Economy, The Crisis and Beyond, November 2009, lk 119. Vt ka Calista Cheung and Stéphanie Guichard, Understanding World Trade Collapse, OECD Economics Department Working Papers No. 729, 30.10.2009
9. Goldman Sachs Group Inc., BRICs and Beyond, November 2007
10. Goldman Sachs Group Inc., The BRICs Nifty 50, 04.11.2009
11. Hawksworth John ja CooksoGordon n, The World in 2050: Beyond the BRICs, PricewaterhouseCoopers LLP, March 2008
12. International Monetary Fund (IMF), World Economic Outlook: Sustaining the Recovery, October 2009
13. Lee Steven C., Initiative in Crisis: The Effects of the US and China Economic Stimulus Packages on the Global Recovery, SmithStreetSolutions, October 2009
14. Lionel Fontagne, "The World in 2025: Macroeconomics, Growth, Trade", European Commission, The World in 2025, January 2009
15. OECD, Economic Outlook No. 86, 19.11.2009
16. OECD, Policy Brief: Globalisation and Emerging Economies, March 2009
17. Ohmae Kenichi, Triad Power: The Coming Shape Of Global Competition, 3rd ed., Macmillan USA, 1985
18. Quinian Joe, „The Perils of Deglobalisation Threaten to Choke Recovery", Financial Times, 22.07.2009
19. Simpfendorfer Ben, „Chinese Exports Could Crash Fragile Markets", Financial Times, 29.06.2009
20. The Economist, „Round and Round It Goes", A Special Report on China, 22.10.2009
21. UK Foresight – Horizon Scanning Centre, Scenarios for the Future International Environment 2010-2020, May 2008
22. UK Government Office for Science, World Trade – Possible Futures, 2009
23. UNCTAD (United Nations Conference on Trade and Development), Trade and Development Report 2009, 2009
24. WTO ITS: World Trade Organisation, International Trade Statistics, 2009
25. WTO World Trade Report 2009: Trade Policy Commitments and Contingency Measures, 2009

[48] In addition to marine transport, a certain trade volume related to China can also be serviced through Siberia and Kazahkstan with shuttle train transport that moves west and northwest, which is suitable for more expensive goods that require quicker delivery. However, this corridor can only be of secondary importance compared to the marine corridor.

6.3. Business environment – in Estonia and in international comparison

Along with the international economic environment which surrounds the national economy, another important element is the business environment of firms within the national economy. The concept of the business environment combines both macro and micro factors. On the one hand, the usual macroeconomic indicators such as inflation or exchange rate stability; and on the other hand, access to specific production factors or how advanced is the cooperation network of companies in the given country. The business environment depends on the level of the society's institutional development, and as such, it does not change very easily or quickly. At the same time, it includes indicators which are quite quickly affected by the fluctuations in market conditions, for instance, access to financing or markets.

The business environment can also be viewed from an individual's viewpoint and treated as an environment for entrepreneurs or potential entrepreneurs, thinking about establishing their own companies. In that case, different aspects could be added to the meaning and importance of this environment. For instance, various psychological factors may become more important, such as support for business activities in the society, or the opportunity to get bank loans for starting up projects, which in most countries is significantly more difficult for individual entrepreneurs or small businesses than for large companies.

In the case of so-called transition economies, the features of the business environment that are usually highlighted are related to the stability of the general macroeconomic environment, elementary legal protection and the prevention of possible government interference. In other words, if the currency is not devalued, inflation is low, the tax burden small and companies are not bothered by the mafia or government bureaucracy, the business environment is good and nothing more can be asked for. Maybe only the better functioning of the courts could be desired. However, the picture of a favourable business environment for companies and entrepreneurs becomes more complicated and multifaceted upon a more detailed analysis and at higher levels of economic development.

We have based the following analysis primarily on the indicators provided in *The Global Competitiveness Report 2009-2010* issued by the World Economic Forum in 2009, and have chosen these indicators for business environments that are of central importance to Estonia and countries at a development level similar to Estonia, rather than Third World countries.

In addition to Estonia, the comparative analysis will include the parameters of the business environments in 14 countries. The choice of countries was based on the following criteria: the countries had open economies and populations that categorised them as small or mid-sized, not large countries; the countries had levels of economic development similar to or more developed than Estonia's, but not significantly lower. Canada and Poland are borderline based on their size, but from the viewpoint of the global economy and based on population, rather than area, they can be classified as mid-size rather than large countries.

All the countries were divided into three groups: highly developed countries, developmental type countries[49] and Central and East European (CEE) catching up countries.

Along with *The Global Competitiveness Report* rankings of the basic problems obstructing enterprises, and the statistics provided by the report, statistical data from other sources have also been used in this comparative analysis.

In the case of the groups of countries chosen for the comparative analysis, the strengths and weaknesses of the business environment are clearly located in various components of the environment. In other words, one can speak of distinct characteristic environments in the highly developed countries, in the so-called developmental states, and in the Central and East European countries.

In the countries with highly developed economies (Sweden, Finland, Denmark, Canada) infrastructure is well-developed, and the education and training of the labour force are among their strongest aspects. This is a proof of the good cooperation between the private and public sector. The property rights are effectively guaranteed. The economy is clustered, and individual enterprises can rely on well-developed corporate connections. The research and information technology environments are well functioning. The macroeconomic balance is not a problem, and inflation is low. The financial markets are well developed. A situation has been achieved where business ideas with high potential are granted loans even if they have no collateral. Policies are stable, and there is little corruption. The activities of the government apparatus are criticised, but not very sharply. High taxes and the drawbacks of tax-related practices are perceived as a great problem. A serious problem is the low level of flexibility in the labour market.

Among the second group of the developmental states (in the given example, the Republic of Ireland, Singapore, Hong Kong and the United Arab Emirates) tax issues and the limited flexibility of the labour market are not among the basic problems of the business environment. Infrastructures are almost as well developed as in the group of countries with developed economies; slightly less so in Ireland. The greatest difference between developed and developmental states occurs in their educational levels. If the Nordic countries have become countries with a university-bred workforce, then the developmental states are still far from achieving this level. Exception could be Ireland, where the share of university-educated workforce is not significantly lower than in Canada thanks to the great efforts that have been made during the last decades. At the same time, the

[49] This group of countries (so-called developmental states) comprises the states, which have been successful in ecconomic and technological development within the past half-century, moving upwards from below by using a development model where the coordinating and mobilising role of the state has been somewhat greater than the mainstream economic ideologies would allow. This group is traditionally considered to comprise East Asian countries, but active state development policies permit the inclusion of others, e.g,. Ireland. Some theoreticians argue that even the UK and the USA have been developmental states at a certain stage of their development, although not within the past half-century.

Table 6.3.1. The quality of business environment components in various countries

Business environment parameter	Finland	Sweden	Denmark	Canada	Estonia	Latvia	Lithuania	Poland	Czech Republic	Slovakia	Hungary	Slovenia	Republic of Ireland	Singapore	Hong Kong	UAE
1. (In)stability of policies	☺	☺	☺			☹			☹	☹	☹	☺		☺	☹	
2. Corruption	☺	☺	☺	☺		☹	☹		☹	☹	☹		☺	☺		
3. (In)efficiency of the state apparatus				☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☺	☹	
4. Time needed to set up a company				☺	☺						☺	☹		☺		☹
5. Property rights	☺	☺	☺	☺		☹	☹	☹	☹	☹	☹	☹	☺	☺	☺	
6. Access to financing (pre-crisis)		☺	☹	☹	☺			☺								
7. Access to financing (2009)	☹	☹	☹	☹	☹	☹	☹	☹	☹		☹	☹	☹		☹	☹
8. Getting loan for good business plan without collaterals	☺	☺	☺			☹	☹	☹			☹		☹	☺		☺
9. Inflation rate (pre-crisis)		☺	☺	☺	☹	☹	☹		☹		☹	☹	☺	☹		☹
10. Tax burden (% GDP)	☹	☹	☹						☹	☹	☹			☺	☺	☺
11. Tax burden as perceived problem	☹	☹	☹	☹			☹			☺			☺		☺	☺
12. Tax regulations	☹	☹	☹	☹	☹	☹	☹	☹	☺		☹		☺		☺	☺
13. Share of tertiary education	☺	☺	☺	☺	☺		☺		☹	☹			☺	☹	☹	☹
14. Perceived adequacy of labour qualification	☺				☹	☺	☺			☹	☺		☺	☹	☹	☹
15. Quality of educational system	☺	☺	☺	☺		☹	☹	☹		☹	☹		☺	☺		
16. Overregulation of labour market	☹	☹		☹		☺		☹		☺	☺	☹		☹		☹
17. Quality of overall infrastructure	☺	☺	☺	☺		☹		☹		☹	☹		☹	☺	☺	☺
18. IT environment in the country	☺	☺	☺	☺	☺	☹		☹					☺		☺	
19. Research and engineering potential	☺	☺	☺	☺	☹	☹	☹	☹				☹	☺	☺	☹	
20. Clustering of economy	☺	☺	☺	☺	☹	☹	☹	☹		☹	☹			☺	☺	

☺ High quality Average quality ☹ Low quality

Source: Authors' classification based on World Economic Forum assessments and data of the OECD and Eurostat

capability of the established educational system to prepare a workforce with the necessary parameters is assessed to be very high in all the developmental states examined. Due to the weakness of long-term domestic research traditions, particularly Singapore and the Emirates have intensively imported scientists from abroad for universities and both public and private research laboratories. Three out of the four countries consider their rights of ownership to be securely guaranteed and only in the Emirates do we encounter criticism in this regard. The indicators for company clustering are surprisingly good, as are those for the development of financial markets, and the research and information technology business environments. All of the above allow us to assert that the rapidly developmental states have been able to create well-functioning institutional and technological business environments, and it is used not in low value-added production, but to satisfy the needs of a mostly high-tech industrial and service economy.

From the viewpoint of macroeconomic balance, the economic picture in the group of developmental states is more problematic – the ratios of budget deficit to GDP, inflation rates, etc.

In this group of countries, stronger criticism regarding the government apparatus is only found in Ireland. Of course, since the remaining three countries are not entirely showcases of democracy, the lack of criticism may not necessarily mean that there are no problems.

A series of common traits can also be noticed among the Central and East European catching up countries (CEE countries), although variances within this group are greater than in the previous two groups. Estonia and Lithuania have almost caught up with the Nordic countries as to the share of university education. The educational indicators for the countries in this group are quite good. Educational indicators of the remainder of the group are also relatively high with the exception of the Czech Republic and Slovakia. But taken as a whole, the gap in the educational indicators of these countries and those of the highly developed countries is not hopelessly large. Indicators of this group are clearly better than those of the developmental states . Of course, one could question how sustainable is this advantage, because all the developmental states are making great efforts in the field of education. There are excellent examples among other countries of this type, whose educational indicators are among the best in the world (South Korea and Taiwan). However, the capability of the CEE countries' educational systems to prepare a workforce that is needed for the countries' economies to be competitive was assessed to be much weaker. According to the assessment, only the best country among the CEE group (which somewhat surprisingly is the Czech Republic) surpasses the least successful developmental state, Hong Kong. As a whole, the developmental states clearly exceed the CEE countries in respect to this criterion. However, the experts in all these CEE countries, except for Estonia, do not place the inefficiency of the workforce at the top of the list of problems. After the worsening of the financial environment, which was an unavoidable cofactor of the current dramatic crisis, practically all the post-communist countries have focused on the tax system and the criticism of government inefficiency, which was also given greater emphasis in the

remaining two groups of countries.[50] In some countries, not only the ineffectiveness of the government apparatus, but even downright corruption, was considered to be a big problem.

As far as individual parameters, the picture in the CEE countries is also relatively unsatisfactory in regard to the guarantees for the right of ownership (except for Estonia), technical infrastructure (except for Estonia and Lithuania) and the creation of enterprise clusters (except for Slovenia). In comparison to the developmental states, the situation is not significantly better in regard to the general economic balance (Latvia!), and several countries cannot rely on the disciplinary effect of the EU and (a hope of) the euro.

If during the pre-crisis period companies in the CEE countries did not face significant problems with obtaining financing, then the situation has now changed fundamentally. In all the CEE countries, except for Slovakia, the problem is ranked either in first (including in Estonia) or second place. The reasons for the worsening of access to money differ from county to country, and include doubts about the sustainability of activities in the country's domestic market, the disappearance of foreign markets, or conditions in the banking industry. Access to financing has also become a key problem in the majority of the developmental states (three out of four) in our sample – in Ireland, United Arab Emirates and to a somewhat lesser degree in Hong Kong.[51] Access to money has also become more difficult in the developed economies, but the situation here is not as one-dimensional. Access to financing has risen to the forefront of important problems for companies in Canada and Denmark; while in Sweden and Finland, access to financing during the crisis is clearly a smaller problem than the impeding impact of high tax rates and rigid labour regulations.

In summary, the picture of the business environments in the CEE countries, including Estonia, is seriously thought-provoking. They are faced simultaneously with strategic (longer-term) and tactical (situational) problems. The former includes problems related to the transition to innovation-based economic development, which are caused by the non-conformity of the country's educational profile to the demands of the economy and the positioning of companies in the unfavourable parts of the value chain. In some of these countries, but not all, these problems are accompanied by serious shortcomings in macroeconomic balance. However, from the assessments we can see that the need for moving to a new stage of development has not been clearly recognised. The levels of technological development, cooperation and clustering between companies, and personnel training are considered to be low, but are not included among the principal problems. The government apparatus is not seen as providing help in solving structural problems -- as it is in the developmental states and those with developed economies. Rather, the government is viewed as a hinderer. Moreover, it is thought that its size should be reduced in order to reduce taxes that are considered to be too high, although compared to the rest of the EU the taxes are not very high. If the inefficiency of the bureaucracy is a serious problem in the CEE countries, it is hard to imagine how taxes can be reduced alongside with achieving good results, for instance, in the creation of infrastructures or educational and research-technological environments – undertakings that assume forceful action by government bureaucracy.

During the current economic crisis, access to financing is existentially important to the companies in the CEE countries. The question is, whether surviving the crisis will help the CEE countries, including Estonia, attune themselves better and more correctly to solving strategic problems than they did during the pre-crisis period. It is also important that the recovery from the crisis takes place in a way which maintains long-term developmental potential, which is related in large part to human capital and social capital.

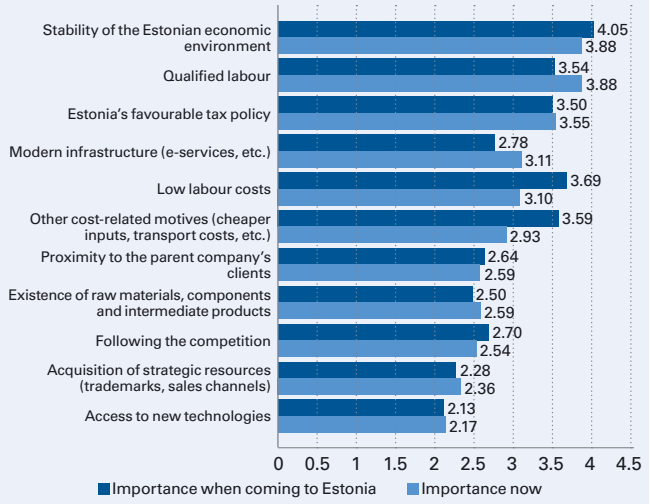
Business environment of SMEs in Estonia

What are the strengths and problems of business environment from the viewpoint of small and medium-sized enterprises (SMEs) in Estonia, compared with other countries? Some answers are provided by the analysis prepared by the European Commission's Directorate-General for Enterprise and Industry (SME Country Fact Sheet). Based on the so-called "SME radar", compared to other EU countries, Estonia's environment for small businesses is characterised by a relatively small and simple bureaucracy (companies can be established quickly; entrepreneurs need to spend less time on reporting and other paperwork). For Estonian small businesses, access to financing was (NB! before the start of the economic crisis) comparable to the average in other EU countries, but the payment discipline among companies was worse. It was notable that Estonian small businesses were significantly more internationalised than the EU average, i.e. the ratio of export and import operations was higher. However, it is also notable that in Estonia the number of small businesses per capita is lower than the EU average, as is the number of businesses generally. This despite the fact that "SME radar" data even states that over 30% of Estonia's adult population has tried some form of enterprise at one time or another, which is significantly higher than the EU average (23%). In other words, a relatively large number of small businesses have been created in Estonia, but few have survived for a longer period. Yet the assessment of the entrepreneurs is that the supports provided for entrepreneurial activities are stronger rather than weaker compared to the other EU countries. Maybe the reason is the fact that compared to their EU colleagues Estonian small business people do not see entrepreneurship as a "challenge" or a test, but view dealing with entrepreneurship as something that is imposed on them, an activity that is unavoidable or routine. This

[50] Actually of the European countries, only the countries of South Europe countries exceed the CEE countries in regard to the criticism of the government (bureaucracy).

[51] It is interesting to note that in those East Asian countries that have started on their path to becoming a developed country somewhat earlier than the countries on our comparative table, namely Japan, Taiwan, and South Korea, the access to financing is not an existential question based on the Global Competitiveness Report.

Figure 6.3.1. The significance of various factors in the Estonian market currently and when first making the foreign investment in Estonia (1 = totally insignificant ... 5 = very significant).



Source: Foreign Investor 2009, Department of Economics, University of Tartu

provides food for thought about how we teach and promote entrepreneurship in Estonia, and what motives we emphasise.

In summary, the picture that we get of the business environment in Estonia, based on the assessments of entrepreneurs and experts, as well as the available objective information, seems to be more encouraging than in most CEE countries. However a large number of problems are common. It is obvious that Estonia's policies toward the individual components of the business environment need to be reinterpreted based on the experiences gained from the economic recession, and in the light of the Estonian economy's new developmental stage. Experiences to be utilised for the improvement of various components of the environment can probably be found in the practices of the developed and developmental states.

The business environment from the viewpoint of the foreign investor

Along with the business environment that functions on the basis of local ownership, it is also interesting to explore what the business environment is like for foreign-owned companies in Estonia and how the environment is evaluated by the heads of these companies and foreign investors. After all, attracting foreign investments is one of potential factor supporting recovery from the economic crisis. In this connection, foreign direct investments play the most important role, since, compared to other forms of investment, they are most directly connected to the start-ups and operations of companies, to employment, and also often have better access to foreign markets and modern technology.

Does a high-quality business environment which meets demands and expectations of foreign-owned companies differ from the one that satisfies domestic firms? Probably not. At the same time, the population of the foreign-owned companies in Estonia differs somewhat from that of Estonia's domestic companies. On average, foreign-owned firms are larger (3–4 times larger based on the number of employees), they have higher propensity to export, are more closely integrated into international value chains and use more highly qualified labour. Therefore, it is logical to assume that their priorities also differ from those of locally owned companies, and therefore, their assessment of some facets of Estonia's business environment may be different.

As a whole, serious attention should be paid to the foreign-owned companies and particularly important is to monitor attitude of local managers of foreign owned firms as they play extremely important role in the entrepreneurial landscape of Estonia. If in practically all branches of the economy, while these companies comprise less than 10% of all companies[52], they provide about one-third of the turnover of the Estonian economy. Moreover, foreign-owned companies provide over 44% of the operating profits in manufacturing and about 27% in trade . They provided almost 62% of exports in 2007. The relative importance of foreign owned firms in the total export of Estonia has slowly increased and has even given some authors reason to speak about the degradation of the export indicators of locally owned companies. The majority of foreign-owned companies have Nordic (Swedish and Finnish) owners. The ratio of foreign investments in Estonia from the US, UK and other distant countries has declined slightly compared to earlier periods.

In fall 2009 the *Välisinvestor 2009* (Foreign Investor 2009) survey was carried out by the Faculty of Economics and Business Administration, University of Tartu. Among other issues also a comparative analysis was made about the significance of various factors of business environment for investors by their first entry into Estonia, and in the year of the study (2009). Two different lists of business environment components were used when asking about the assessment of foreign investors. The first and broader one provided a list of various conditions for conducting business and using the factors of production, which were examined primarily from the aspect of making and avoiding expenses. The second list focuses on Estonia as a investment destination, from the aspects of market access and logistics. The interviewees were also asked for free-form comments.

When coming to Estonia, besides the stability of the economic environment, the most important factors were low labour costs and other production input costs, and a third argument related to costs – a favourable taxation system – was almost as important as qualified labour. In the interviews, cost-based explanations also dominated (cheap labour, cheap energy), and political and economic stability were also mentioned as an Estonian strength. In some cases, the opportunity for a good starting position was also mentioned, since the companies in which investments were made had the necessary equipment and experienced personnel.

[52] Here we must still take regional differences into account; in 2008, every fifth company with more than 10 workers in metropolitan Tallinn (Tallinn including the surrounding rural municipalities and Maardu) belonged to foreign owners) (A. Viia and E. Terk. *Välisomandis ettevõtted Tallinnas ja lähiümbruses.* Tallinn, Estonian Institute for Futures Studies, 2008, p. 7).

In the current situation, certain shifts have occurred in the previous motivational structure. It could be summarised by the following formulation: placing greater importance on qualitative conditions as opposed to motives related to costs. The stability of the economic environment – as much as one can speak about it within the current economic recession – and favourable tax policy continue to be important. But the greatest change compared to the period of initial investment is the growing importance of qualified labour.. The existence of a modern infrastructure has become more important, and the availability of raw materials, components and semi-finished products has also become slightly more important.

The importance of low labour costs and other cheap production inputs has decreased significantly. Shifts have also taken place in the access to various markets as a motive for investment.

Generalising the traits that describe access to markets, one could state that by the first entry foreign investors looked Estonia as a promising market in several ways. In addition to the good growth prospects in Estonia itself, it was seen as a good springboard for the expansion to the other Baltic countries. It was considered as an important factor along with the hope of being able to enter "other" markets from here, which the majority of respondents understood as Russia. Somewhat less significant, but still important, was the possibility of starting to produce in Estonia for the markets of the so-called "old" EU countries.

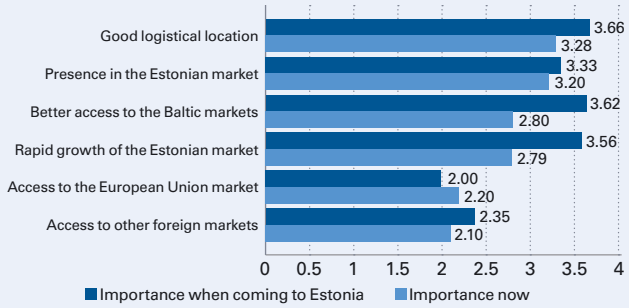
The interviews that were conducted by the Estonian Institute for Future Studies at the end of 2008 with the representatives of foreign-owned companies in or near Tallinn produced similar results. The importance of the geographical location of Tallinn and the surrounding region were also very apparent from this study. However, assessments by foreign investors of the importance of Estonia's market, and those in the other Baltic countries, were very sceptical (NB! keeping the current period in mind) – "The Estonian market? Its size is only a decimal point."

During the current period, several arguments related market access, as well as eastward and southward logistics have been (temporarily?) weakened. Estonia's own market has shrunk significantly as well as the markets in the other two Baltic countries. It seems that the logic of "through Estonia to the other Baltic markets" is no longer valid. The attractiveness of Russia and other faraway markets has also decreased. However, compared to other factors, the incentive to use Estonia as a place to manufacture for more expensive EU markets has strengthened.

Examining the assessments by the representatives of foreign-owned companies of the problems with components of the business environment, we see that these are quite similar to those mentioned in the previous subchapter. A small difference is that foreign-owned companies are slightly less critical of the Estonian government than domestic evaluators.

Although shortcomings in legislation and government bureaucracy were not criticised most severely, problems with compartmentalisation and the ambiguous division of responsibilities that prevails at the administration of the government were mentioned. For instance, the Ministry of Economic Affairs and Communication asserts that

Figure 6.3.2. The importance of the factors related to markets in operating in the Estonian market now and when first making foreign investments in Estonia (1 = totally insignificant ... 5 = very significant)



Source: Foreign Investor 2009, Department of Economics, University of Tartu

Figure 6.3.3. Average assessments of problems hindering the development of foreign-owned companies and/or their further expansion in Estonia. Selection factors (1 = totally insignificant ... 5 = very significant)

Source: Foreign Investor 2009, Department of Economics, University of Tartu

the area that is most problematic for foreign investors is under the jurisdiction of the Ministry of Environment. At the same time, the Ministry of the Environment is orientated toward the administration of resources and cannot provide adequate cooperation for resolving problems related to resource-based industry. In labour legislation, problems are seen in the vagueness of certain provisions of the law, or ambiguities in the broader sense, but the principal directions of the development of labour legislation are considered to be favourable to enterprises. In the field of taxation, some questions developed, for instance, regarding issues related to the taxation of fringe benefits and dividends, however, based on the study conducted by the working group at the University of Tartu, the foreign-owned firms in Estonia consider Estonia's tax policy to be beneficial for them.

In the course of the study by the Estonian Institute for Future Studies, the representatives of foreign-owned companies were asked what is hindering their development and why foreign investors are leaving Estonia. The top negative assessments were the lack of qualified labour,

work efficiency, as well as the high cost of labour. The shortage of airline connections was also noted.

With the start of the economic crisis, the situation of foreign-owned companies has also changed significantly. Based on statistics, in the first half of 2009, Estonia changed from a country with a (net) inflow of foreign investments to one with an outflow. However, when interpreting statistics, one must take into account that for quite a long time, the majority of foreign direct investments into Estonia consisted of reinvestments of foreign firms from profits being earned in Estonia. In 2008, 72% of earnings were reinvested. Due to the market situation in 2009, profits decreased significantly, while at the same time, the owners that are located abroad did not reduced the share of profits they withdrew, but rather increased them because of uncertainty. Consequently inflow of foreign direct investments into Estonia was falling during the 2009.

Should we be afraid that the economic crisis will force foreign-owned companies to actually leave Estonia? Both the University of Tartu and Institute of Future Studies surveys provide a basis to state that a massive exodus is unlikely. Firstly, foreign-owned companies have a greater "safety coefficient" than domestic ones. Many owners of foreign-owned companies have survived a number of economic crises, and if once they have invested in a country and set up production, they are not likely to liquidate because of few "lean" years. Foreign-owned companies react to market downturns by reorganising internally, changing their manufacturing profile, and sometimes their markets. They have greater potential for reorganisation than locally owned companies. Besides, crises can also have a positive effect. An economic crisis can help – at least temporarily – to solve the problem of insufficiently qualified labour and to keep wages under control. "Today, the situation has changed dramatically," stressed the representatives of several foreign-owned companies that have long complained about labour shortages, a decline in work morale, and fast-rising wages.

Therefore, the problems faced by foreign-owned companies are not so much operational but strategic in nature, which has at least two aspects. As we saw in Figure 6.3.3, even now, in a crisis situation, the most critical factor is not economic instability, but continues to be labour and the set of factors related to its qualifications. If we assume that locally owned rather than foreign-owned companies will be the ones that go bankrupt or are forced to significantly cut jobs, the labour situation will temporarily ease for the latter. At the same time, it is not clear if this will not reoccur in the same acute form after a few years when the economies have recovered – at least in regard to labour qualifications. Estonia should create a much clearer picture for itself of what qualifications will be required by our export enterprises (and by our foreign-owned companies) in the post-crisis world. If we assume that Estonia is not a suitable country for large companies that require only one type of labour, and we really need flexible mid-sized and small companies, this will present serious challenges to our educational and training system. For instance, along with people who have a command of electronics and mechanics, we also need to train mechatronic engineers, i.e. people who can integrate and implement the knowledge and skills of both these fields. Such shifts must take place at all educational levels, starting with vocational schools and ending with universities.

The other aspect of the problem is related to the question of which type of foreign-owned companies we would like to see be dominant in Estonia. Among the foreign-owned companies in Estonia there are still too many firms orientated toward cheap manufacturing costs. There are too few ambitious companies that are striving for a breakthrough in the global economy. There are also too few companies that are orientated toward the creation and development of knowledge and its use, and not cheap resources or efficiency. The international economic crisis may temporarily provide opportunities for a somewhat depreciated Estonia as a replacement producer. We may be given a few orders or production from a country more expensive than Estonia may be transferred here ready to be "written off" once costs increase. This could be important for surviving the crisis and preventing high unemployment, but it cannot be a sustainable development path. There are many measures for increasing the number of foreign investors orientated toward knowledge-based enterprise, starting from well-considered actions to attract selected foreign investors and ending with the broader international presentation and promotion of Estonia's own knowledge – for instance, the knowledge and skills related to the oil shale industry. However, it is extremely important that a broader favourable environment be created for investors and companies orientated toward knowledge-based enterprise. Be it the development of relations between Estonia's universities and international concerns (currently the lion's share of the internationalisation in Estonian universities is focused on the development of scientific contacts and the internationalisation of education, not on developing contacts with the world's large manufacturers[53]) or the creation of a generally more international atmosphere, which would ensure that companies that want to set up production outside Tallinn or Tartu need not worry that the top specialists and family members that move to Estonia will encounter a narrow-minded and intolerant social and cultural environment.

References

1. SME Country Fact Sheet. Estonia. Eurostat SBA database
2. State of Region Report 2009
3. Varblane, U. et al. (2009). Välisinvestor 2009, University of Tartu Faculty of Economics and Business Administration
4. Viia, A., Terk E. (2008). Välisomandis ettevõtted Tallinnas ja lähiümbruses. Tallinn: Estonian Institute for Future Studies
5. World Development Forum 2009

[53] One of the few exceptions is the cooperation between the Institute of Physics located in Tartu and Samsung.

6.4. The tax environment in the entrepreneurial and human development contexts

The tax environment is undoubtedly one of the most important factors impacting the level of economic activity. During the last decade, the reduction of the tax burden and simplicity of the tax environment have been the declared objectives of all Estonia's ruling coalitions. On the one hand, a low tax burden has been treated as the engine of economic growth and the primary stimulus for investments. On the other hand, in the context of the European Union, a relatively low tax burden as an indicator of the economic environment has been presented as a "trademark" of the Estonian economy. At the same time, the substantive relationship of the tax environment with both economic development and the social sustainability of Estonian society have not been sufficiently discussed in Estonian society. Many tax changes have unfortunately been directed at satisfying "political contracts" and strengthening the aforementioned image without knowing how to or even wanting to consider their actual impact. It could be stated that several decisions related to tax policy in the last five years have ended up contradicting the general macroeconomic principles of managing economic cycles. A reduction of the income tax during a period of rapid economic growth in 2004–2007 resulted in the overheating of the economy, the deformation of economic structures and a decline in competitiveness. On the other hand, the increases in consumption taxes in 2008–2010 worsened the situation in the consumer market and further accelerated the shrinkage of the economy.

Below we will examine three mutually related aspects of taxes. Firstly, we will make an international comparison of Estonia's tax burden, tax structure and budgetary policies generally. Thereafter, we will analyse our tax environment by individual taxes. Finally, we will try to examine what prospective changes could be made in tax policy based on the impact of the tax system on the economy and human development generally.

The tax burden in Estonia and in the world

During the last decade, there have been very volatile changes in Estonia's GDP. At the middle of the decade, Estonia's economic growth was one of the fastest in the European Union. In 1999–2006, rapid GDP growth allowed the tax burden to be reduced and budgetary reserves to be accumulated. Figure 6.4.1 shows Estonia's tax burden and the dynamics of GDP growth during the last decade.

Until the middle of the decade, Estonia's general tax burden declined, and thereafter started to increase. An important factor in the growth of the tax burden was the requirement to bring the principles of the Estonian tax system and minimum tax levels into compliance with European Union legislation. Although the tax burden has fluctuated from year to year, the variances have remained within narrow parameters, i.e. 31–33% of GDP.

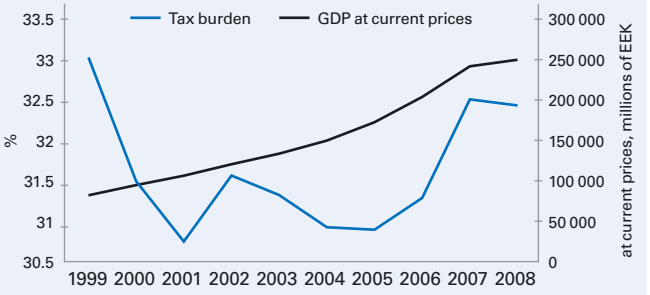
Real economic growth becoming negative in 2008-2009 and the attrition of reserves, as well as the deficit in the public sector, have forced the ruling coalition to halt the planned reduction in the income tax rate, and to increase consumer and unemployment taxes. Under conditions of diminishing economic and consumer activity, this accelerated the economic recession and worsened the economic environment.

An international comparison shows that Estonia's total public sector revenues during the last decade have been lower than the European Union average and remained quite stable, reaching 36–37% of GDP (see Figure 6.4.2). The given chart shows the levels of public sector revenues in 1999 and 2008, as well as the maximum level for the period under examination. Although there is no clear and uniform trend for revenue levels, in most countries the revenue levels in the public sector were lower in 2008 than the maximum level for the period.

The comparative tax burdens in Estonia and the other EU countries are correlated to the levels of total revenues in the public sector (see Figure 6.4.3). The majority of countries have reduced their tax burdens during the decade, with the greatest reduction being made in the tax burdens of Slovakia, Sweden and Latvia.

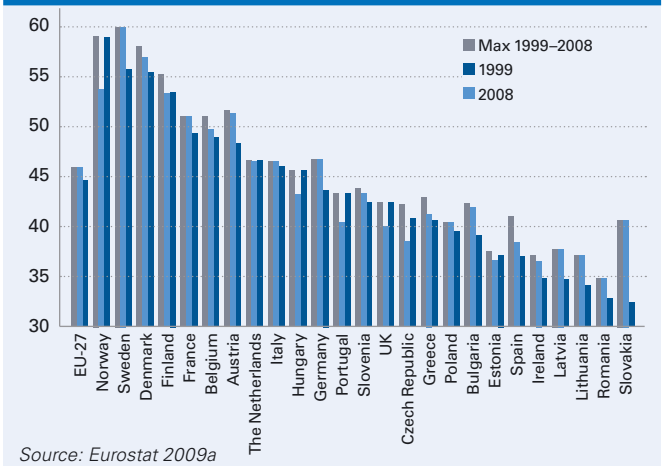
In the Baltic Sea Region, we are dealing with neighbouring countries where conspicuous differences exist in tax burdens, as well as competitiveness and levels of human development. The Nordic countries, which have the highest tax burden in the EU as well as the highest levels of human development and international competitiveness, are integrated into the same economic region as the Baltic countries, which have some of the lowest tax burdens, and which are also conspicuous for their low level of social expenditures and unresolved social problems. Since most of Estonia's trade is conducted with and foreign investments come from countries in the Baltic Sea Region, Estonia's low tax levels – compared to the

Figure 6.4.1. Comparison of Estonia's tax burden and the dynamics of GDP growth in 1999–2008



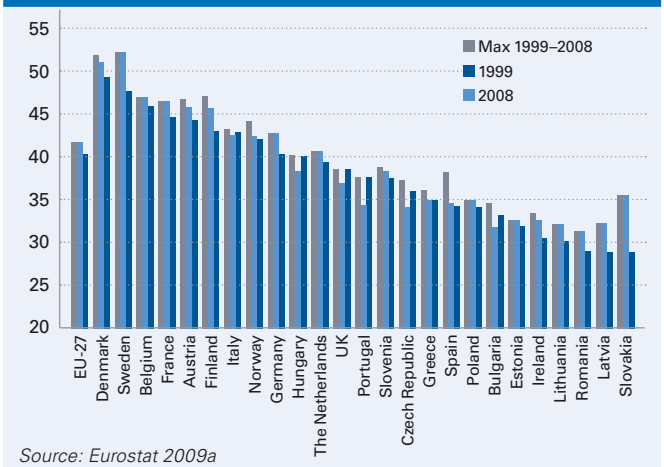
Source: Statistics Estonia

Figure 6.4.2. Total revenues in public policy sector in the European Union states, % of GDP



Source: Eurostat 2009a

Figure 6.4.3. Taxes and social insurance payments in the European Union, % of GDP



Source: Eurostat 2009a

Table 6.4.1. Taxes (billions of EEK) and percentage in tax revenues

	Total taxes	Product taxes	% of total taxes	Income taxes	% of total taxes	Social insurance payments	% of total taxes
1999	27.3	9.8	35.9	8.1	30.0	9.3	34.1
2000	29.9	11.8	39.7	7.4	25.0	10.5	35.3
2001	33.0	13.4	40.8	7.8	23.8	11.6	35.4
2002	37.8	15.2	40.2	9.1	24.3	13.4	35.5
2003	42.0	16.5	39.3	10.9	26.1	14.5	34.6
2004	46.1	18.2	39.6	12.0	26.1	15.8	34.3
2005	53.1	22.8	43.0	12.2	23.0	18.1	34.1
2006	63.7	27.5	43.3	14.8	23.2	21.3	33.5
2007	78.3	33.0	42.2	18.7	23.9	26.5	33.9
2008	80.3	30.4	37.9	19.9	24.9	29.9	37.2

Source: Statistics Estonia

wealthier countries in the region – were considered to be very important for attracting foreign investments. However, it has also been asserted that such tax competition is destructive and may create tensions in the coordination of tax policy and inhibit the closer integration of the region. During the current economic recession, the differences in the principles for managing economic cycles in Estonia and the Nordic countries became clear. The Nordic countries have directed significantly more fiscal resources into the enlivening of the economy and labour market than have the Baltic countries. Estonia and the other Baltic countries have directed their activities toward balancing the budget of the public sector, not at restoring economic growth and stabilising the labour market (State of Region Report 2009, also see the last sub-chapter of this chapter).

Estonia's tax structure

The tax structure is important from the viewpoint of the budgetary stability of the public sector and the distribution of the tax burden. Generally, taxes can be classified based on their functions as taxes related to products (VAT, excise and others); income taxes (individual and corporate income taxes); and social insurance payments (social and unemployment payments).

During the last decade, most Estonian taxes were collected as product or consumption taxes (see Table 6.4.1). Almost a quarter of the tax revenues were received from income tax and one third from social insurance payments. The situation changed drastically during the crisis starting in 2008, when the shrinkage of consumption significantly reduced the ratio of consumption taxes and the percentage of social insurance payments increased correspondingly. Drastic changes in the receipt of budgetary revenues testify to the imbalance in various tax revenues, which is one of the weaknesses of the Estonian tax system. In a small country with an open economy like Estonia the fact that a large percentage of public sector revenues come from consumption taxes makes the system vulnerable to consumption cycles and external shocks and makes budgetary revenues very volatile, which in turn increases insecurity about the sustainability of financing for the public services (health care, education, culture, social welfare) that are important for human development.

Examining the social impact of consumption taxes, especially VAT, we see that they have the tendency to redistribute the tax burden to the detriment of the least privileged segment of the population compared, for instance, to the taxation of assets and income. In Estonia's budgets, consumption taxes have been relatively more important than in the wealthier EU countries and this trend has strengthened during the last decade (see Figure 6.4.4). In the EU on average, the percentage of indirect taxes compared to total taxes has decreased in the period being examined, although the dynamics by country have been contradictory.

Increasing VAT and excise taxes in 2008–2010 further increases the dependency of Estonia's national budget on consumption taxes. The increases in consumption taxes inhibit the domestic consumer market and clearly reduce the number of foreign tourists and increase black-marketing. In summary, an increase in

consumption tax may actually reduce tax revenues in the public sector.

The budgetary revenues for Estonia's public sector from direct taxes (individual income tax and corporate income tax) and social insurance payment are proportionally smaller. The following chart reflects the percentages of the given taxes among public sector revenues in the EU countries.

In the European Union on average, the ratio of social insurance payments to GDP is relatively constant, while direct taxes have fluctuated somewhat by year. In Estonia, the ratio of social insurance payments to GDP declined until the middle of the decade, and then started to increase rather quickly.

Similarly, the level of direct taxes compared to GDP has changed. The change in the corporate income tax system and the reduction of income tax rates decreased the percentage of direct taxes until the middle of the decade. Although the level of direct taxes compared to GDP has increase somewhat, it is assumed it will continue to decrease during the next few years.

Sustainability of budgetary policies

In order to assess the effectiveness of Estonian tax policy attention should be paid to four mutually related aspects.

- Budgetary balance in the public sector in various phases of the economic cycle;
- Taxes as an influencer of the tax policy cycle;
- Tax policy as a shaper of a competitive economic structure;
- The relationship of the tax policy to the society's socio-political objectives

Unfortunately, one must confess that, in regard to all these aspects, the Estonian tax system has demonstrated insufficient effectiveness and adaptability. This is evidenced by very volatile economic growth, a public sector deficit during the last few years, and the negative structural changes in the economy.

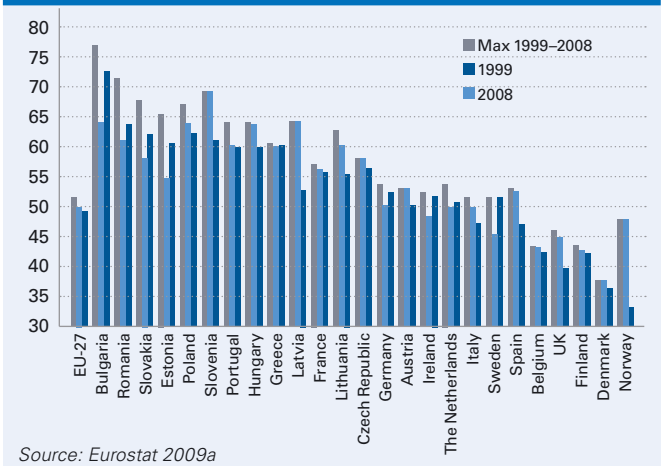
If during the growth phase of the economic cycle and at the high point of consumption, which was based on loans, tax receipts guaranteed coverage for current budgetary needs and the accumulation of reserves, the economic recession reduced tax receipts drastically as of the 2008. The public sector was able to hold the budgetary deficit within the 3% framework due only to significant budget cuts and the large-scale sale of public sector assets. At the same time, the large budget cuts have also been accompanied by the significant intensification of the decline in GDP and Estonia's economic recession is one of the most serious in Europe.

The tax system has also supported the *pro-cyclical* nature of Estonia's fiscal policy. It has unduly intensified the speed of economic growth and overheating in 2004–2007, while at the same time, also intensified the contraction of the Estonian economy under conditions of the global economic recession. In this regard, two aspects can be pointed out – the aforementioned unbalanced tax structure and the weak stabilisation effect of direct taxes.

Various taxes "behave" differently in various phases of the economic cycle. In the downward phase of the economic cycle consumption decreases significantly and the tax revenues from consumption shrink faster than the flow of direct taxes. Therefore, during the downward phase, receipts from direct taxes are relatively more stable. In countries where the income tax rate is on a progressive scale, a certain automatic stabilisation effect takes place – in the rapid growth phase individual revenue restrictions increase due to the increased tax rate and as revenues drop, the nominal purchasing power of individuals increase. Therefore, the change in purchasing power also "automatically" affects the speed of the economic growth to a certain extent. In the case of Estonia's individual income taxes, this stabilisation effect is lacking and therefore the income tax system tends to intensify upward and downward economic cycles.

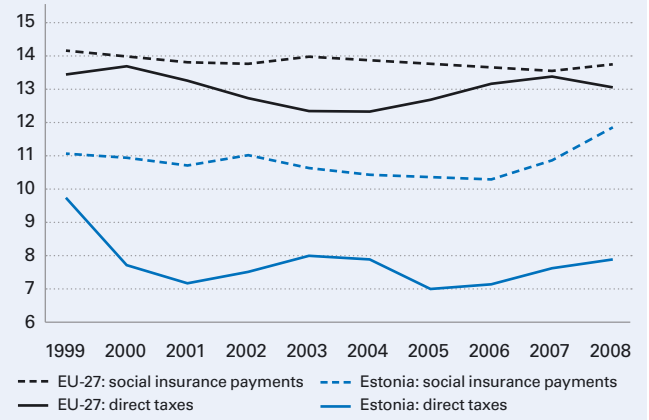
From the standpoint of competitiveness, excessively fast economic growth also negatively affected the placement of Estonia's economic resources. Labour and investments moved into sectors directed at domestic consumption (building, commerce, and personal service), which in turn whipped up domestic consumption, while inhibiting the competitiveness of the export

Figure 6.4.4. Percentage of indirect taxes in the budgets of EU countries



Source: Eurostat 2009a

Figure 6.4.5. Ratio of direct taxes and social insurance payments to GDP in Estonia and the European Union on average



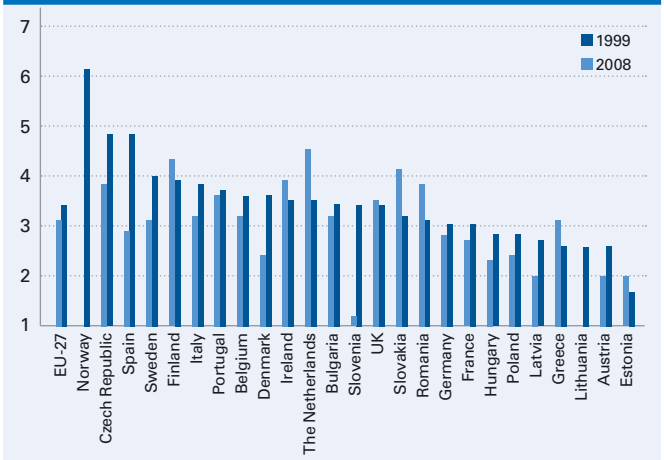
Source: Eurostat 2009a

Table 6.4.2. Income tax rates in the European Union and "emerging economies", %

	Nominal income tax rate, %	
	1999	2009
EU-27	33.5	23.6
Germany	51.6	29.8
Poland	34.0	19.0
Lithuania	29.0	20.0
Finland	28.0	26.0
Sweden	28.0	26.0
Estonia	26.0	21.0
Latvia	25.0	15.0
BRIC	34.0	28.3
Russia	35.0	20.0
China	33.0	25.0

Source: Eurostat 2009b

Figure 6.4.6. Share of corporate income tax revenues in the EU countries, % in GDP



Source: Eurostat 2009a

sector. One cannot claim that the pre-crisis economic growth helped social development. As shown in the previous (2008) Estonian Human Development Report, Estonia's GDP grew faster than the budgetary spending for the health-care, education and social welfare systems. Estonia is among those at the bottom of the EU's social welfare ranking, and we cannot boast of purposeful reform in the aforementioned systems. However, the total expenditures for the social sphere did increase during the rapid economic growth, and this left the mistaken impression that the systems were financially sustainable. The risk exists that during an economic recession the social spending, for instance for health care, which is already at a critical level, will fall below the critical level. This would weaken our human potential and thereby reduce the possibility that we can start up a new cycle of strong economic growth after the end of the economic recession.

Corporate tax burden and the tax environment

The impact of the tax system on business activities can be treated conditionally from two, largely overlapping aspects – firstly, taxes that directly impact a company's cost or income levels (social taxes, income tax, etc.); secondly, taxes that affect the economic environment more broadly (e.g. consumption taxes). Below we analyse the Estonian corporate tax environment based on comparative international statistics and on several specific studies.

Estonia's unique principle of taxing profits has been broadly presented as an example of a liberal and attractive investment environment. We could say that the corporate income tax system has been of symbolic importance for Estonia during the last decade. In the European Union as a whole, the income tax rates have significantly decreased during the last decade. This had occurred primarily in the name of making the economic environment more investment-friendly, above all in the interests of "visual" competitiveness and external attractiveness. At the same time, the countries' public sector revenues from income taxes have not decreased, since the decline in the tax rate has been compensated by the expansion of the tax base and the reduction of various exemptions. The nominal income tax rate in Estonia is average in the ranking of EU states (see Table 6.4.2). It turns out the nominal or "visual" rate of Estonia's income tax is not very attractive compared to Estonia's close neighbours in the region. At the same time, the companies operating in Estonia have a unique advantage in the fact that profits are taxed only when they are paid out, while profits (re) invested in the company are exempted from taxes.

At the same time, the percentage of income tax revenues compared to GDP received in the public sector budget from the profit base of Estonian companies is the lowest in the European Union (see Figure 6.4.6).

During the last decade, the percentage of tax revenues from corporate income taxes has fluctuated between 2.3% and 6% (see Table 6.4.3). Since foreign-owned companies in the European Union can significantly manipulate where they declare their profits, there is no direct connection between economic growth, profits earned in Estonia and the income tax paid here. The actual average income tax rate between 2000 and 2007 fluctuated between 5% and 8%. This causes a paradoxical situation where the ability of the Estonian government to fulfil its assignments as a public service provider with the help of tax revenues, in order to guarantee the education, health care, social welfare and security of the population, is related to the development of business, not through the increase of the companies' profitability and productivity, but rather through the individual incomes of the owners, more so the workers, and especially through an increase in their consumption capabilities.

Empiric analyses in the global context do not indicate any well-defined connection between corporate income tax rates and the intensity of foreign investments. However, there is a clear relationship between the effective marginal tax rate and the volume of foreign investments.

In other words, the volume of investments is determined by the opportunity to earn a profit, and not by how high the nominal rate of corporate income tax is in one country or another.

In its last annual review (2009), PriceWaterhouseCoopers has assessed the global tax environment from the standpoint of corporate expenses, in respect to the time needed for administering taxes and the complexity of the procedure. Based on these aspects, the countries have been ranked according to the ease of paying taxes.

Of 183 countries, Estonia holds a strong 38th position. If Estonia has a relatively good position in respect to the time spent on paying taxes (16th place) and the number of tax procedures (30th place), it is in 131st place in respect to the indicator used in the study that is based on the taxes paid by the company as a percentage of the company's annual profits. However in respect to this indicator, it must be taken into account that its use to compare different companies is extremely problematic, since the given percentage depends directly on the portion of the social tax burden that is borne by the company based on the respective country's legislation. As we know, in Estonia social insurance payment are made by the employer based on the wages paid to the workers, and in many other European countries, social insurance payments are made by the employer. However, this is not true in all countries. For instance in Denmark, which is a country with one of the highest tax burdens in the world, corporate tax costs are relatively low because the tax burden has been shifted to the individual. However, to enable Danish wage earners to pay high taxes, the businesspeople must pay high wages, i.e. make higher labour-related expenditures. Therefore, a comparison of countries based on the PriceWaterhouseCoopers method, although it directs attention to one of the particularities of the Estonian tax system, i.e. the high relative importance of social taxes among the taxes paid by companies, it does not provide a true picture of business costs levels. In order to analyse the actual level of the corporate tax burden, this must be done in conjunction with other large expense components.

Below we examine the tax problems of the businesses in Estonia and Baltic Sea Region based on the data from an analysis made by the World Economic Forum (see *The Global Competitiveness Report 2009–2010*; 2009).

Firstly, tax rates. The tax levels have not been a great problem for Estonian businesspeople. The tax rate level is at 6th or 7th place in the ranking of problems, compared to other principal business inhibitors such as the lack of qualified labour, inflation and other factors. Unlike in Estonia, in the other Baltic Sea Region countries one of the primarily problems inhibiting business for entrepreneurs has been a tax rate burden that is too high. This result correlated directly with the generally high level of the tax burdens in the Nordic countries, but the tax burden level in Lithuania is also creating problems.

Estonia's favourable tax environment is also reflected in the World Economic Forum's review of the impact of taxes on investment and work initiatives, in which Estonia is in 15th place (2009). In this list, Estonia is ahead of all the Baltic Sea Region countries. The majority of Nordic countries are located in the second hundred of the list. The World Economic Forum also uses the corporate tax burden used by PriceWaterhouseCoopers as an indicator, and based thereon, Estonia is again at the bottom negative end of the list thanks to the high level of social taxes paid by companies.

Table 6.4.3. Corporate income tax, billions of EEK

	GDP	Corporate gross profit	Corporate income tax	Income tax compared to earned profits	Compared to GDP	% in the State's Budget renevues
1999	83.8		0.01	–	2.0%	6.0%
2000	96.3	11.7	0.8	7.3%	0.9%	2.9%
2001	109.0	11.3	0.7	6.6%	0.7%	2.3%
2002	121.6	19.6	1.3	6.9%	1.1%	3.6%
2003	136.4	26.4	2.1	8.1%	1.6%	5.1%
2004	151.5	32.7	2.5	7.7%	1.7%	5.5%
2005	174.9	41.6	2.4	6.0%	1.4%	4.7%
2006	206.9	64.3	3.1	4.9%	1.5%	4.9%
2007	244.5	64.9	4.0	6.3%	1.7%	5.2%
2008	251.4		4.1	–	1.7%	5.2%

Source: Statistics Estonia

Secondly, tax regulations. The bureaucracy related to tax regulation has been less disruptive for Estonian businesspeople than the tax level, although a drastic turn for the worse has occurred during the last few years. On the other hand, tax regulation has been the primary factor interfering with entrepreneurship in Poland during the period under examination. Problems are also created by tax regulations in the majority of Baltic Sea Region countries.

How to continue?

The rapid economic growth during the last decade has created a deceptive illusion of Estonia's budgetary needs and capabilities of the tax system. The budgetary deficit of the public sector and the insufficient development of the social infrastructure have made it necessary to reassess the functionality of the tax system.

The tax changes that took place in Estonia before the economic crisis were based to a great extent on conditions imposed by the European Union accession. This is particularly relevant to indirect taxation and primarily to taxes related to products. The EU has established minimal VAT tax rates and a differentiation by products and services, which has forced Estonia to establish the same type of tax organisation. The same has occurred with excise taxes. EU regulations have had a smaller impact on direct taxes, although Estonia's "involuntary moves" in this regard have also been obvious. The level of nominal corporate income taxes corresponds to the European Union average, but the system for taxing profits creates the lowest corporate tax burden in the EU.

During the economic recession of the last few years, the governments of various countries are faced with a situation where, on the one hand, tax revenues need to be guaranteed in order to perform their economic and social functions, while on the other hand, entrepreneurship and investments need to be encouraged. Public sector expenditures increase the corporate tax burden, but also create the preconditions necessary for economic development.

The sudden increase in the budget deficit during the last few years has forced Estonia to make rash and ineffective decisions resulting in increases consumption taxes, which have further intensified short-term economic problems. The multiple increases in unemployment insurance payments have significantly increased labour costs for companies, and the successive increases in consumption taxes make our market situation less competitive compared to our neighbouring countries. The sustainability of the short-tem financing of Estonia's public sector assumes the development and balancing of the tax system. Therefore, the principal question is "What is an effective tax structure and distribution of the tax burden between various "tax victims"?

The receipt of public sector tax revenues must be balanced between the various types of taxes and the tax level must be sustainable based on the functioning of society. Based on Estonia's current tax structure, the burden of consumption taxes or social taxes cannot increase. Therefore, the only possible option is to increase the portion of income taxes – both individual and corporate income taxes – in the financing of the public sector. For companies, the largest tax cost is related primarily to the high level of social taxes. However, demographic trends and the need for social expenditures are further increasing the contribution to social programmes. Therefore, the social tax burden of companies can be maintained at the current level or reduced only by redistributing the tax burden to other types of taxes.

References

1. Statistics Estonia www.stat.ee
2. Eurostat (2009a). Government finance statistics - Summary tables 2/2009 http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home
3. Eurostat (2009b). Taxation Trends in European Union http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-81-09-553/EN/KS-81-09-553-EN.PDF
4. PriceWaterhouseCoopers (2009). Paying taxes 2010 www.pwc.com/gx/en/paying-taxes/index.jhtml
5. State of the Region Report (2009) http://www.bdforum.org/show/english/reports_publications/state_of_the_region_report.aspx
6. The Global Competitiveness Report 2009–2010, 2009) http://www.weforum.org/en/index.htm

6.5. Lessons of the crisis

International comparison of Estonia's support packages

The global financial crisis that started in September 2008 developed within a few months into a general economic crisis, which was characterised by the loss of confidence among economic organisations, the disruption of currency circulation, the collapse of the real estate markets in various countries, limited access to the credit in manufacturing, an increase in arrears, declarations of bankruptcy, shrinking demand/consumption and increased unemployment. These events were very reminiscent of the initial phase of the Great Depression that started in 1929. Therefore, it is totally understandable that the governments of the most important countries decided to do everything in their power not to repeat the mistakes made three-quarters of a century ago and reacted quickly to the crisis when it began. The US unveiled a programme to save its banking almost instantaneously, by announcing an allocation of hundred of billions of dollars for the banks. Unfortunately, it was clear from the beginning that it would not be possible to prevent the crisis that was threatening to become serious and long-lasting, just by supporting the banking industry. Therefore, practically all the European Union and OECD countries set about compiling programmes, in addition to those for saving banking, to prevent excessive and drastic declines in economic activity and the contingent undesirable social consequences. The IMF, OECD and European Commission also called for such programmes to be drawn up.

Essentially, these programmes served two purposes. Firstly, the stimulation/support of consumption either by reducing the taxation of consumers (individual income tax, VAT), making monetary transfers to consumers or with special price supports. Secondly, various programmes were implemented to support manufacturing enterprises including their partial nationalisation, in order to recapitalise companies that had gotten into trouble but were important to the country – because of employment (for instance the auto industries in the US and Germany, etc.) or the functioning of the economy as a whole (in the US for instance, Fannie Mae and Freddie Mac that provide home mortgage-backed securities) – and to increase confidence in them. Thirdly, just like three-quarters of a century ago, public infrastructure investments were increased in the majority of countries in order to guarantee the creation of new jobs in the public sector and thereby replace at least partially those jobs that had been lost in the private sector. Some countries have also decided to use the crisis period to enlarge their planned investments for supporting new economic growth by increasing allocations for innovation and development.

In summary, all the European Union states and other developed countries have implemented support (stimulus) packages to mitigate the effects of the crisis and restore economic growth in the mid-term. At the same

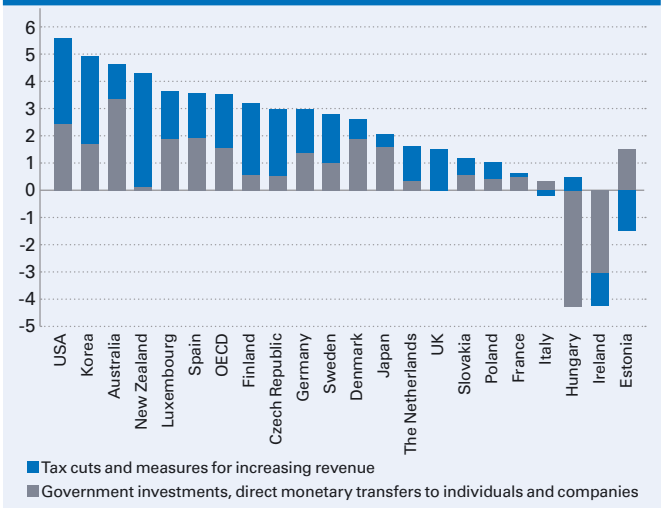
time, one must keep in mind that these special support packages are only one part of the government's income and expenditure policy for the crisis period. Often the resources set into action by so-called automatic stabilisers[54] (primarily benefits provided by law) have a significantly greater impact on a country's economy than do aid packages.

According to an OECD study, special aid packages prompted by the crisis on average will comprise 3.5% of the countries' GDP in 2008-2010 (except for the expenditures made to keep the financial systems of the given countries or the world functioning). There are also a whole series of countries in the EU (Ireland, Hungary, Latvia, Lithuania, and Estonia) that have been forced to drastically cut their expenditures. However, extensive cuts in public spending did not totally exclude the creation of special stimulus packages in these countries. In Estonia, the estimated total for the package to enliven the economy was 5 billion EEK (Prime Minister Ansip's speech on 18 February 2009), although at the same time, the volume of government expenditures had to be reduced in 2009 with the first supplementary budget by 6.5 billion and together with the second supplementary budget by 9.8 billion EEK.

Estonia's 5-billion-EEK aid package, which equals 2.5% of GDP, is somewhat smaller than the OECD average (but if we leave out the giant US package, Estonia's package is quite comparable to the OECD average). Unfortunately, our problem is the tempo of the aid, even in the priority direction – from the spring of 2008 to the end of 2009 less than 300 million EEK was provided for the support of export, and the KredEx export guarantees will not arrive in the market until the summer of 2010.

Estonia has notified the OECD that during the crisis our priority is to support the following: the establishment of water supply and sewage systems; construction of transport and municipal infrastructure, establishment of the vocational and health-care infrastructure; export with the help of export supports and guarantees; technological and developmental activities; the construction sector; in-service training; implementation of energy conservation measures for dwellings; and active measures in the labour market. There is not reason to be critical about these courses of action, but at the same time, we must recognise that the size of Estonia's support package is somewhat deceptive. Significant supplementary resources are not being allocated for this package; rather the aforementioned fields of activity are being supported with existing funds, as a rule by redirecting money from European Union Structural Funds. Essentially, this is the redistribution of resources, under conditions of a sharply reduced budget. It is clear that amounts intended for development can be redistributed only by sacrificing one set of developmental applications for another. As indicated above, in many countries most of the support during the crisis occurs through automatic stabilisers that are built into the economy, i.e. outside of the crisis packages in the strict sense of the concept.

Figure 6.5.1. Size of the stimulus packages in various countries, % of 2008 GDP



Source: OECD, Policy responses to the Economic Crisis. Investing in Innovation for Long-Term Growth, June 2009: 19 and the author's calculations

Generally, support packages are reduced to programmes for reducing/increasing taxes and expenditures. Their content differs from country to country based on the economic situation in the country before the crisis and what is seen as the state's role in the crisis.

In some countries, the budgetary policy for the crisis was already pre-programmed when the budget was drawn up; in other countries, drastic changes had to be made in the budget or money loaned to cover the programmes. Also, relatively few expenditures had to be made to stabilise the situation in countries that did not get involved in risky banking practices (in the loans or securities markets), that did not have a seriously overheated construction market and where strong automatic stabilisers took effect (especially to preserve demand). Other advantages were small loan burdens and the existence of reserves. Drawbacks included the general structural weakness of the economy and insufficient international competitiveness, and especially a great dependency on exports. Although, based on the end of the real estate boom, Estonia started to enter crisis considerably earlier than most other countries but this was not immediately recognised. The pace of economic growth clearly started to abate in the first half of 2007 and the signs of structural crises were discernible. Despite this, Estonia was not very prone to working out stimulus packages appropriate for the crisis. This was made more difficult by an understanding that economic self-regulation is all-powerful and a fundamental and prevailing distrust in government intervention measures.

[54] Automatic economic stabilisers are defined as any means/measures that help to limit the reduction of total demand during periods of economic shock or control demand during boom periods, without any decisions having to be made upon the appearance of the threat to obtain this result. In addition to unemployment benefits and other supports provided by the law, automatic stabilisers include progressive income tax, which unlike benefits and supports reduces the fluctuations in total demand during both economic downturns and upturns. Upon a reduction of revenues, a progressive tax scale also reduces the effective tax rate and leaves the consumer with relatively more money, and on the other hand, during a boom, the effective tax rate increases somewhat faster than revenues, w which helps to cool demand.

Nature of support packages

Despite the great variation in support packages, they can be divided into five easily identifiable groups. Firstly, measures to *prevent the collapse* of the national and international finance systems (banking). According to the IMF, about 10 trillion USD was spent for this purpose and some countries (Ireland, Iceland) had to assume liabilities that are comparable to their annual GDPs.

Since Estonia's commercial banks belong to Swedish banks that helped (partially with the help of the Swedish government) its subsidiaries or branches in Estonia to resist the crisis, the Estonian did not need to use its own resources to support the commercial banks that operate here. This has been considered an advantage of the Estonian situation.

Secondly, measures to *support entrepreneurship and promote consumption*, including the reduction of taxes (including VAT), credit guarantees, labour costs (including the reduction of social taxes), and stimuli to reduce layoffs in companies. Estonia entered the crisis from a very unfavourable starting position. The consumption boom that was caused by cheap loans had ended; the real estate bubble had burst; the undeserved revenues that had bloated the budget during the boom had disappeared. A grim truth had become clear – taking into account spiralling wages and low productivity, Estonia is living up to 25% above its capabilities. Therefore, the aforementioned spectrum of measures was significantly restricted to say the least. Instead of promoting consumption, it was necessary to inhibit consumption and this had to occur while serious cuts were being made in the national budget and additional budgetary revenues had to be found. Therefore it is not very paradoxical that, instead of reducing the VAT, a decision was made to increase the VAT. Here one must also take into account the fact that since Estonia is a small country, the stimulation of consumption would not support the industrial production in Estonia that has suffered most from the crisis, but rather imports from other countries.

The only measure with a greater potential for impact in this group could be the provision of the aforementioned credit guarantees to companies by redirecting EU subsidies. Relaxing the rules for providing enterprise supports could also have a certain impact as could a change in the list of the supports that would expand the number of companies that could qualify for various types of enterprise supports.[55]

Thirdly, measures that are directed at *supporting a specific economic sector.* The most important sectors to receive support in this manner are the auto industry and the construction sector. Of these two the latter is the measure that can be most broadly implemented and has the most universal impact, and it was also used in countries that were forced to make great spending cuts, for instance Hungary. Apparently measures to support the construction sector (including the building of infrastructure) would also have a certain effect in Estonia, if Estonia had not set as its most important goal the fulfilment of the Maastricht criteria for budgetary balance that are necessary for adopting the euro, which was impossible without extensive cuts in spending.

Fourthly, measures that *support domestic households* and reduce the vulnerability that was increased by the crisis. The largest items are unemployment benefits and help in paying the home loans of those in trouble. This could also include the creation of so-called "social jobs". In Estonia, benefits are paid in modest amounts and the problems that develop with the payment of home loans, for the time being, are left for the concerned people and banks to resolve.

Fifthly, measures that are directed at *supporting new growth* – training, research, innovation, etc. What is positive in the case of Estonia is that while enterprise supports have been reorganised to apply to a wider target group, the supports for the development of high-tech enterprise (such as the programme for technology development centres) have also been preserved, and an increasingly purposeful and sector-based approach is starting to be implemented for attracting foreign investments. This contributes to foreign investments being obtained for sectors that will provide the greatest added value and are most promising for the future (See the *Estonian Strategy for Competitiveness 2009-2011*). Insufficient institutional capacities may become a hindrance in the implementation of these measures. For instance, the retraining of workers has been declared to be a priority direction, and yet there have been difficulties in providing opportunities for extensive retraining.

In the interests of rapidly restructuring the economy, Estonia should primarily promote the support of new growth, and yet, with unemployment at over 15%, we can obviously not underestimate the need for preserving existing jobs. However, the problem is that such programmes, such as the German programme for providing compensation for reduced working hours at companies, or the Finnish project for safely changing jobs, assumes relatively strong institutional capacities. In Germany and Finland, these programmes are supported by effective social partnerships between the state, employers and employees, which have been developed over a long period, but which have not yet developed in Estonia. Therefore, we can place our hopes above all on measures that require very simple realisation mechanisms, for instance, monetary stimuli for employers with clear conditions for employing the unemployed.

What do we want to learn from the crisis?

What conclusions we should draw from the crisis is being disputed at the international level as well as in Estonia. One can only speculate what would have happened in the markets when the financial crisis broke out if governments had not quickly intervened. However since a secure balance has yet to be achieved in the economy, the market-fundamentalist critics can claim, that government intervention was not beneficial, but rather hindered the implementation of necessary changes as they have tried to do for the measures implemented to overcome the Great

[55] Based on the typology of measures shown here, enterprise supports in Estonia can be placed in both group two and group five. Modernising the system of supports based on the criterion of potential mass, probably favours the second group over the fifth. As far as Estonian practices, the policies included in group three cannot really be spoken about, although it has arisen in discussions.

Depression,. Nevertheless, at the international level, scepticism of current neoliberal economy policy has clearly become predominant. It is agreed that without government intervention the markets would probably have totally collapsed and in order to prevent the repetition of a similar situation in the future, the supervision of markets must be strengthened and the increased regulation of markets must be instituted. Serious criticism has been directed at the dogmas of current economic policy as well as the trends that have dominated the study of economics for the last few decades (Krugman, 2009).

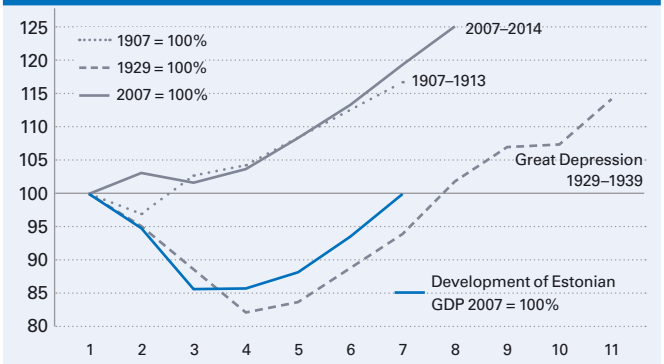
In the case of Estonia it is possible to debate to what extent our economic recession was caused by domestic factors and to what extent by external factors, as well as how quickly and effectively the economic policy steps intended for overcoming the crisis will start to take effect (a central issue is the course toward the quick adoption of the euro). Naturally, the developments in the international economic landscape must also be taken into account. There are few authors who have dared to offer numerical forecasts in this situation. One of the few who has is U. Varblane. Based on the chart (see Figure 6.5.2) that he presented at the conference of the Estonian Cooperation Assembly in November 2009, the following questions arise:

Why does the global financial crisis, the consequences of which were compensated by the Swedish taxpayers, threaten in Estonia to become a long-term local depression, with a serious initial decline, that may even last for up to seven years, while at the same time, the global economy will probably be able to return to growth after only a few years and relatively modest suffering?

Estonia's reaction to date at the political level can be summarised by the following statements:

- The cyclical nature of the economy also impacts Estonia, which means that it is natural that a great boom will be followed by a great recession. However, since both cycles and booms are objective in nature, it is not right to do anything special about them, i.e. to amend our successful economic policy.
- Estonia must acquire even greater reserves for future crises.
- Estonia must reduce public spending.
- To manage risks, privatisation should be continued in order, among other things, to reduce the risks related to the government's social obligations. For instance, to increase private medical and pension insurance.
- Intervention in the economy must be reduced, for instance, by not providing people with incentives for home building.
- Active economic policy measures enacted in Estonia domestically (except for those related to the budget or tax system) have little effect and the external image of Estonia as a target country is decisive for foreign investments. Therefore, the focus in crisis recovery should be on adopting the euro, which in the current difficult economic policy situation is a "strong" sign and will attract foreign capital to Estonia again. The sustainability of development after the sacrifices made for the sake of joining the eurozone would not be a central issue. The impact of introducing the euro will be so strong that the subsequent economic growth will resolve all problems.

Figure 6.5.2. Global GDP dynamics during three crises



Source: Smits, Woltjer and Ma (2009), Maddison (2007), World Economic Outlook Database, Interim forecast of September 2009 and calculations by U. Varblane

Undoubtedly the aforementioned propositions include positions that are right or at least half-right. However, it one must understand that such an approach as a whole very clearly contradicts the shift that has taken place in international economic policy and economic thought as a result of the current economic crisis. One can assert that Estonia's choices in determining the path for its recovery from the crisis are based on the economic policy positions that dominated before the crisis, which were not based so much on the thinking that prevailed in the European Union, but in some US universities and international financial organisations (see Krugman, 2010). The goal is to overcome the crisis, but avoid learning from the crisis, by refusing to update a macroeconomic paradigm that has outlived its purpose. Individual economic policy measures may not totally follow the declared ideological positions especially as it relates to the use of European support funds (e.g. maybe even innovation policy). In any case, it must be recognised that the path dependence factor will have a serious impact on Estonia's political choices upon its recovery from the crisis. In Estonia, the past has a great influence on the present, and therefore the future, of our economic policy. The government's actions are restricted by the understandings and activity patterns that have been fixed over the previous period, as well as an institutional structure that is not well-suited to crisis management and which leaves the main burden of crisis recovery on the shoulders of the Ministry of Finance.

References

1. Estonian Strategy for Competitiveness 2009–2011, 2009
2. Krugman, P. (2009). How Economists Got it So Wrong? "The New York Times", Sept 2
3. OECD (2009). Policy responses to the European crises. Investing in innovation for long-term growth

6.6. Summary

In the summary of the last (2009) Estonian Human Development Report, the future chances for the Estonian economy in the short- and long-term were tied to two factors – Estonia's ability to radically cut its budgetary spending and whether the international economic environment will improve or not in the near future. Actually, the Estonian government was able to more or less cope with the assignment of cutting the budget, and the international economic environment is showing signs of improvement at the beginning of 2010. Therefore, at the time present report is being compiled, Estonia has a chance to recover from the economic crisis; at least there is reason for greater optimism than at the beginning of 2009. Although the balance of foreign investments has become negative, surveys of the representatives of foreign-owned companies indicate that there are no signs of a panic to depart among foreign investors and that they consider the Estonian economic environment to be favourable. Despite increasing unemployment, the social climate in Estonia remains relatively calm. Optimism is increased by the opportunity to join the eurozone in the near future.

Regardless of the aforementioned positive circumstances, there is still a basis for several concerns, especially regarding development opportunities and economic growth in the longer term (the "post-euro" period, as it is being called in the most optimistic forecasts). These concerns can be summarised as follows.

- *Firstly, whether the package of economic policy measures implemented in Estonia, even if adoption of the euro succeeds soon, will have a sufficiently strong impact to guarantee a fast recovery from the crisis and healthy economic growth in the changed external environment.* By analysing the consequences of the Great Depression of the 1930s in retrospect, it has been asserted that the countries that devalued their currency (at that time this meant abandoning the gold standard) recovered from the crisis more quickly, and under conditions of deep crisis, temporarily going into a deep budgetary deficit was justified in order to prevent a social cataclysm. For much discussed reasons, neither of these measures can be included in the Estonian arsenal of political measures. At the same time, we still have several advantages compared to those times: the banking system is functioning; it is possible to "import confidence" with the adoption of the euro; and the money from EU Structural Funds provide some room to manoeuvre. From the viewpoint of the long-term future, it is not right to mystify the transfer to the euro and its accompanying effect. The euro will have a recuperative effect on the economy, but it is not clear how great the effect will be from the viewpoint of Scandinavian businesspeople who want to develop export-oriented production in Estonia. There are both strong and weak elements in the Estonian business environment, but the improvement of the macroeconomic situation will not automatically strengthen the components necessary for the subsequent period. This will require special measures, including cooperation between the business community and the state;
- *Secondly, an unanswered question is what kind of impact the very high long-term unemployment* will have on human development and the possible collapse of Estonia's social potential under these conditions. A recovery in the export markets will not increase employment quickly, and the existing combination of measures that have been implemented does not provide a basis for excessive optimism;
- *Thirdly, doubts have developed about Estonian institutional sustainability* during the economic recession and the period of high unemployment. The current administrative system, which is based on a ministry-centred logic, is not easily adapted for coping under extraordinary conditions, in which for instance, a large number of people have to be retrained, negotiations have to be conducted with large international corporations to get new investments, etc.;
- *Fourthly, the issue of a social dialogue regarding the ways to recover from the crisis is undecided.* As was indicated in the last Estonian Human Development Report, the business-favouring and export-favouring policy for overcoming the crisis requires a broader consensus in society. If large social groups recognise that restarting enterprise will also help them to improve their lives in the foreseeable future they will support it. Otherwise, and especially if new budget cuts are necessary, the execution of such an economic policy may turn out to be impossible. A substantive social dialogue about the way to overcome the crisis has been inhibited to a great extent since the entire set of complicated problems and choices has been artificially reduced to a single issue – the euro. Unfortunately, also in the form of "We will introduce the euro and continue the current economic course that has been successful." In a situation where the requirements of the new period tend to demand the modernisation of our set of economic policy instruments, such a simplified treatment prevents the actual resolution of developmental problems.

CHAPTER 7

Summary. Estonia's choices and fears

Estonia's environment for human development

The environment is the main topic of the 2009 Estonian Human Development Report. The concept of environment is treated as broadly as possible and is recognised as a phenomenon that encompasses subjects ranging from the natural environment to intellectual values. Different chapters approach the issue from different aspects, which include the economic crisis as an environment in itself; the natural environment; the financial situation and organisation of the local governments as the institutional environment closest to us all; the labour market as the environment most crucial for the self-realisation of employed people; and schools, the cultural sphere and the media as the factors shaping the intellectual environment. The report also contains an analysis of Estonia's business environment at both global and local levels, which determines, to a large degree, the availability of material resources for human development. This year's objective approach to the circumstances of human development comes as a contrast to the subjectivity of the 2008 Human Development Report, which was based largely on people's personal satisfaction assessments. However, avoiding a subject-based approach is impossible when we analyse the various environmental aspects. After all, the analyses of the various environments are ultimately aimed at one point – finding out which trends in the environmental processes improve human development and the quality of life, the level of education and overall wellbeing, and which trends harm Estonia's general level of human development as well as the wellbeing and quality of life of individuals. When the analysis is completed, it will be up to the decision makers and planners to draw practical conclusions from its results.

The complexity and path dependency of human development factors

In order to facilitate the comprehension of factors related to human development and social welfare, the 2009 Estonian Human Development Report supplies the public discussion with important concepts which should make it easier for us to understand each other and should also contribute to the development of an adequate model of reality. The variety of welfare regimes, the closed or open nature of social structures, the institutional thickness of various regions, and vertical and horizontal social mobility are just some examples of the terms that express the complexity of human development factors. The simplified belief that the birth rate is the key to sufficient human assets is being replaced with a better understanding of the quality of national human assets and their connection to the supporting or hindering impact of the institutional organisation. We are beginning to see how each individual's self-realisation depends on inherited factors and is shaped by the favourable or unfavourable social, cultural, political, economic or natural environment. The level of development of a society is proportional to the opportunities of its members to have a say in shaping their environment. As indicated in Chapter 2 of the 2009 Human Development Report, there has been a significant increase in the population's willingness to actively participate in issues related to their immediate natural environment. The slower than expected pace of change in public opinion, political culture and ethnic relations has caused the public to feel dissatisfaction and frustration. Unfortunately, the slowness of change is often connected to the inertness of the intellectual environment, which cannot be overcome without a targeted effort by the education system and the media. Understanding the importance of path dependency and recognising the inertness of cultural traditions and values has become prevalent in contemporary social thought. This also influences the perception of the opportunities and limitations related to political solutions. In order to guide Estonia's human development towards a more productive path, we must focus more on the values education and civic education of the future generations.

The role of the institutional environment: regional differences

The central theme of the 2009 Human Development Report is Estonia's capacity for effectively developing, maintaining and using our limited human assets in a situation where the economic crisis has reduced the state's financial resources and unemployment has endangered tens of thousands of families' ability to cope. It is symptomatic that the crisis has caused people to lose faith in the theories of the market's spontaneous and universal ability to maintain economic balance and made them question their beliefs regarding the opposite nature of the roles played by the market and the state. The adequacy of the state's policies and its capacity to implement the necessary changes has been called into question. The authors of the 2009 Human Development Report have also been inspired by the interest shown in the institutional arrangement of societies and their development during periods of transition by Western social scientists during the past decade. The institutional environment and the functioning of various establishments and regulations shape our individual choices and ultimately determine whether or not the society is ready and able to go through the changes that are required in order to turn the crisis into a new period

of successful development. Our recovery from the crisis as well as our ability to ensure Estonia's economic competitiveness and social, cultural and ecological sustainability during the new stage of development depends on more than just the innovativeness of entrepreneurs and the availability of European funds. Various institutional filters and support systems, such as different governmental institutions, the education system, the insurance regulation, social protection, relations under the law of obligations, the family as a support network, etc., play an important role in both mitigating the effects of the crisis and facilitating recovery. Chapter 3 of the report mentions the large differences in the institutional thickness of different regions of the country as one of Estonia's peculiarities. On the one hand, the presence of the state, the capability of the local governments, the diversity and availability of public services as well as people's job opportunities and their resulting economic wellbeing have developed due to historical factors (such as Tartu gaining the status of a university town). On the other hand, during the last two decades these aspects have also been affected by state policies or the lack thereof, due to which some regions have been able to develop at a faster pace than others. This has led to fluctuations in the level of human development (prosperity, state of health, educational indicators) that are unjustifiably large for our very small country and lead to peripheralisation and the loss of population in many rural areas. The accurate mapping of these tendencies and the systematic measuring and prediction of changes in the quality of life should become the most important source of information for the makers of any regional decisions, be they related to educational reform, the funding of EU projects or the amendment of the tax system. The capacity of local governments to shape an environment that supports human development, starting from the provision of good education all the way to ensuring the availability of quality drinking water, is a determining factor in the decision that is to be made regarding the necessity and content of administrative reform. If the current state of indecision continues, the inhabitants of the poorer rural municipalities will often have no choice but to emigrate in order to improve their quality of life and gain access to suitable public services or better job opportunities.

The crisis underlines the weaknesses of human development and aggravates old problems

The idea that economic growth is not irrevocably linked to the increase in the sustainability of the society has been common to a number of the Estonian Human Development Reports. In the 2009 Human Development Report, the initial chapter (which is traditionally devoted to the three components of the Human Development Index – prosperity, health and education) attempts to also focus on how these components may react to the impact of the crisis, although the statistical indicators reflecting the effects of the crisis were not yet available when the report was being written. When the international crisis hit, the structural problems of the economy and the weaknesses of our economic policy transformed Estonia, almost overnight, into a country with one of the world's fastest-shrinking economies and highest unemployment rates. According to predictions, Estonia's unemployment rate will remain very high at least until 2013, while at the same time, the implementation of a strict fiscal policy has forced the state to limit further its social protection spending. Meanwhile, the alleviation of the situation of the long-term unemployed, the high unemployment rate among young people, and the need to provide children growing up in families where the parents are unemployed with the necessary means for development require the quick implementation of effective measures in order to prevent the prolonged negative effect of unemployment on public health and vitality. Chapter 1 of the 2009 Human Development Report underlines the old dangers that have been exacerbated by the economic crisis: the mortality of young and middle aged men, which may increase further as a result of long-term unemployment; the increase in educational and social inequality, which wastes Estonia's already limited human assets; and the increase in the rate of emigration, primarily among young people, if the social problems continue to mount. Quick solutions must be found to several very serious problems that will not disappear simply as a result of an economic revival. For example, we need to provide funding for social protection systems although the existing tax base is not sustainable. In terms of education policy, a solution must be found for educational stratification, i.e. the inequality in people's access to quality education due to socio-economic stratification and inadequate regional policy. As a result of Estonia's limited human resources, it would otherwise be very difficult to effectively satisfy the needs of the labour market in a society with a modern economy.

Efforts towards overcoming the crisis

Chapter 6 of the 2009 Human Development Report, which is focused on the economy, discusses the efforts that must be made in order for Estonia to successfully recover from the crisis and embark on a road towards sustainable growth:

- collaboration between the business community and the state with the aim of increasing the openness and flexibility of the business environment in order to motivate both local small business owners and foreign investors with serious intentions to strive towards the creation of new and more competitive services and products that have a higher added value;
- restructuring the tax environment so that it would support stable and balanced long-term economic development and the improvement of the quality of life instead of amplifying the effects of economic cycles;
- increasing the capacity of business owners for participating effectively even in culturally more distant markets and for engaging in smoother cooperation with partners in nearby markets;
- the public sector and business owners engaging in a determined joint effort to prevent the loss of human assets (unemployment, bad state of health, lack of qualifications that meet the needs of economic development, lack of motivation, emigration).

It is important to understand that "the improvement of the macroeconomic situation will not automatically strengthen the series of the components necessary for the subsequent period. This will require special measures,

including cooperation between the business community and the state" (see Chapter 6). At the same time, however, the economic downturn and the high unemployment rate have revealed Estonia's lack of institutional capability in extraordinary circumstances. Increasingly, the process of solving the development problems has been slowed down by the narrow short-term interests of political parties as well as their simplified approaches to and dogmatic stereotypes of the functioning of the state and the economy. While stagnant notions and relations hinder the creation of an open and constructive social dialogue, they are even more detrimental to actual collaboration between different institutions and social subjects.

Dangerous signs of social stagnation

The human development problems exacerbated by the economic crisis pose a serious challenge to Estonia's ability to critically assess the development path it has been on so far and to efficiently rectify the situation where necessary. Chapters 3, 4 and 5 of the Human Development Report, however, draw attention to worrying trends that contradict our deep-seated beliefs regarding Estonia's status as a very dynamic environment that is well suited for handling new challenges.

In many areas, we encounter signs that point towards the opposite – the ossification of social structures and the threat of stagnation. The following indicators are the most alarming:

- the "crystallisation" of regional differences into a model with two centres and a periphery that is increasingly falling behind the centres in terms of its quality of life and level of economic development;
- the low level of both intergenerational and intragenerational social mobility and the prevalence of inherited social status;
- the inability of the education system and the social sphere to ensure that children growing in a less advanced socio-economic environment have equal opportunities for developing their natural talents;
- the ossification of the social stratification pattern – the entrenchment of the social, everyday, professional and cultural barriers between "higher" and "lower" classes;
- the reproduction of outdated gender-based cultural patterns in the education system and the media, resulting, on the one hand, in the inequality of men and women in the labour market, and, on the other hand, in the early disengagement of boys from education; these factors cause a chain reaction, bringing about a situation where the level of education of women and men is different, their positions in the labour market are not symmetrical, and their family relations are often unstable;
- the inflexibility of ethnic barriers, the lack of capacity for intercultural communication and collaboration.

It can be presumed that the inability of the state to carry out the necessary reforms, for example to achieve a situation where the administrative-territorial system and the education system correspond to the needs of economic and social development and to the changes in the population, both reflects and amplifies this trend of social ossification. This also raises doubts as to the feasibility of the changes that have been proposed by economists as measures for overcoming the economic recession.

Which welfare model is suitable for Estonia?

Even if Estonia never becomes a welfare state in the Scandinavian sense, we will, as a European country, have to think and come to an agreement about the necessity and nature of our own welfare state model. This can be accomplished by comparing ourselves to the welfare regimes that have developed in capitalist societies and have been categorised as liberal, conservative and social democratic by the Danish social policy theorist Esping-Andresen, whose classical approach has been used by several authors of the 2009 Human Development Report. The typology of welfare regimes did not appear *ex nihilo* and is not the result of arbitrary theoretical or ideological exercises of thought. The development of the different welfare models is based on the centuries-long evolution of European societies, which has been affected by culture and ethnic makeup, natural conditions, the forms of economic activity, wars, and population processes. Researchers in contemporary Europe engage in lively discussions concerning the sustainability of the Nordic "social democratic" welfare model as well as the question of whether one or several different welfare models will come into being in post-communist Eastern and Central Europe. For example, it has been pointed out that the choices of Slovenia and the Czech Republic depend on the tradition of the German corporative social state, while the Estonian model is seen primarily as liberal and, despite the important influence of the Finnish example, even "American" in nature, although it contains some elements of the conservative so-called Southern European model. These experiences and questions will have to be discussed and interpreted in detail based on the Estonian context in order for us to be able to define which path enables Estonia to maximise its potential for developing its human assets and ensuring its social and cultural sustainability even in dire economic and political straits. In the course of this process, we should make it clear for ourselves as well as for others, which similarities and differences Estonia's human development possesses with our neighbours to the south (to whom Estonia compares favourably) and with such successful post-communist transition countries as Slovenia and the Czech Republic (who still have a considerable lead over us in terms of human development). Hopefully, the opportunity to see the impact of factors related to the natural, economic, institutional and cultural environment on human development provided by the 2009 Human Development Report will inspire the reader to give the issues raised above some thought.

Profiles of editors and authors:

Chapter 1:

AIN AAVIKSOO (MD, MPH) is Head of the Health Policy Programme at the PRAXIS Center for Policy Studies. His fields of research include management and innovation in health care, and governance. (1.1, 1.2, 1.3, 1.4, 1.5, 1.6)

GERLI PAAT (MScPH) is an Analyst of Health Policy at the PRAXIS Center for Policy Studies. Her fields of research include the assessment of public health programmes and the quality of health services. (1.3)

EVE MÄGI (MA) is an Analyst of Education Policy at the PRAXIS Center for Policy Studies. Her fields of research include international education, educational inequality and the development of curricula. (1.4)

LAURA KIRSS (MA) is an Analyst of Education Policy at the PRAXIS Center for Policy Studies. Her fields of research include the organization of education policy, educational inequality, and integration policy. (1.4)

KIRSTI NURMELA (MA) is an Analyst of Labour and Social Policy at the PRAXIS Center for Policy Studies. Her fields of research include lifelong learning, flexible work formats, working conditions, collective labour relations, and social partnership. (1.3.)

Chapter 2:

KAJA PETERSON is the Programme Director in the field of sustainable development at the Estonian Institute for Sustainable Development/Stockholm Environment Institute Tallinn Centre. Her fields of research include sustainable development, the implementation of environmental policy and the integration of environmental policy with other policies, as well as the assessment of the environmental impact of strategies and development activities. (2.1, 2.2, 2.3, 2.7, 2.8)

HELEN POLTIMÄE is a Project Manager at the Estonian Institute for Sustainable Development/Stockholm Environment Institute Tallinn Centre and a doctoral candidate at the University of Tartu Faculty of Economics. Her main field of research is environmental economics, primarily the impact of environmental taxes on sustainable development. (2.5)

PIRET KULDNA is a Project Manager in the field of sustainable development at the Estonian Institute for Sustainable Development/Stockholm Environment Institute Tallinn Centre. Her fields of research comprise the methods, means and indicators of sustainable development, including the involvement of the public and interest groups in decision-making related to sustainable development issues. (2.7)

TEA NÕMMANN is the Director of the Estonian Institute for Sustainable Development/Stockholm Environment Institute Tallinn Centre. Her fields of research include the assessment of the long-term developmental sustainability of society, the correlations between economic and environmental policy, environmental taxes, and the implementation of environmental management systems in companies and the public sector. (2.5)

HARRI MOORA (PhD) is the Programme Director for the management of the environment at the Estonian Institute for Sustainable Development/Stockholm Environment Institute Tallinn Centre. His areas of research include the development and organisational implementation of environmental management resources and methods as well as the analysis of the environmental impact and economic cost of waste treatment systems. (2.4)

ASTRID SAAVA (Dr Med) is Professor Emeritus of public health at the University of Tartu. Her research primarily deals with environmental health risks and their assessment. She participated in preparing and developing the Public Health Strategy for Estonia. Astrid Saava currently works (part time) as a Senior Researcher at the Tallinn University Institute of Estonian Demography and researches issues related to health in the Estonian Family and Fertility Survey. (2.6)

Chapter 3:

VEIKO SEPP (MSc) is an Analyst at the Geomedia Consultation and Training Centre. His areas of research are local government and regional development. (3.1, 3.2, 3.3, 3.4, 3.5)

RIVO NOORKÕIV (MSc) is a Consultant at the Geomedia Consultation and Training Centre. His field of activity includes strategic planning in the public sector and local development. (3.5)

Chapter 4:

LEENI HANSSON (PhD) is a Senior Researcher at the Tallinn University Institute of International and Social Studies. Her main fields of research include changes in gender roles, children and families, and problems related to combining work with family life. (4.11)

JELENA HELEMÄE (PhD) is a Senior Researcher at the Tallinn University Institute of International and Social Studies. She studies the impact of the institutional framework and ethnic segmentation on occupational and educational stratification in society. As a new field of research, she has started dealing with issues related to the perception of inequality. (4.2, 4.6)

MARGARITA KAZJULJA (MSc) is a Researcher at the Tallinn University Institute of International and Social Studies as well as a doctoral candidate. To date, her research activities have been focused on ethnic relations, education, and the problems related thereto. (4.4)

KRISTINA LINDEMANN (MA) is a Researcher at the Tallinn University Institute of International and Social Studies as well as a doctoral candidate. Her main fields of research include social stratification, primarily differences in education and in the labour market based on ethnicity. (4.3, 4.10)

MARII PAŠKOV (MSc) is a Research Assistant at the Tallinn University Institute of International and Social Studies. Her research activities are focused on issues related to the flexibility of the labour market, the welfare state, and social equality. (4.4)

TRIIN ROOSALU (MSc) is a Researcher at the Tallinn University Institute of International and Social Studies as well as a doctoral candidate. Her research activities are focused on issues related to participation in the labour market, flexible working hours, and lifelong education. (4.9)

EVE-LIIS ROOSMAA (MSc) is a Researcher at the Tallinn University Institute of International and Social Studies as well as a doctoral candidate. She deals with issues related to education, including lifelong education, with special focus on researching barriers in education. (4.7)

ELLU SAAR (PhD) is a Professor at Tallinn University Institute of International and Social Studies. Her main fields of research include issues related to the alteration of society's social structures, education, lifelong education, and social mobility. (4.3, 4.5, 4.7)

KADRI TÄHT (MSc) is a Researcher at the Tallinn University Institute of International and Social Studies as well as a doctoral candidate. Her research activities focus on issues related to combining work with family life and the study of flexible forms of work. (4.9)

MARGE UNT (PhD) is a Senior Researcher at the Tallinn University Institute of International and Social Studies. Her main fields of research include issues related to higher education, the transition of young people to the labour market, and relations between education and the labour market. (4.8)

REIN VÖÖRMANN (PhD) is a Senior Researcher at the Tallinn University Institute of International and Social Studies. His fields of research include the social stratification of society and gender segregation in the labour market, as well as the problems related thereto. (4.1, 4.10, 4.12)

Chapter 5:

VERONIKA KALMUS (PhD) is a Professor of Media Studies at the University of Tartu. Her areas of research include children and young people in the developing information and consumer society, and the development of values in the cultural context of Estonia as a transitional society. (5.1, 5.3, 5.7)

INGER KRAAV (PhD) is an Associate Professor at the University of Tartu Department of Education. Her areas of research include family and children, personal development and education. (5.5)

MARJU LAURISTIN (PhD) is the Professor of Social Communication at the University of Tartu. Her main fields of research include social changes in transitional Estonia, problems related to the knowledge and information society, and the Russian minority in Estonia. (5.4)

MAARJA LÕHMUS (PhD) is an Associate Professor at the Institute of Journalism and Communication of the University of Tartu. Her fields of research include the reflection of changes in Estonian society on the changes in the cultural and media interests of the population, and the problems related to the development of the public, journalism and broadcasting. (5.4)

ANDRUS SAAR (PhD) is the Manager of Saar Poll, a social and market research company. His field of research comprises the issues related to the formation of public opinion. (5.2)

ANDRA SIIBAK (PhD) is a Researcher at the Institute of Journalism and Communication of the University of Tartu. The focus of her research is on the Internet use of children and young people and the opportunities and risks arising from it. (5.6)

MARGIT SUTROP (PhD) is the Professor of Practical Philosophy and Head of the Centre for Ethics of the University of Tartu. Her fields of research include value pluralism, the ethical aspects of new technologies, methods of value education, etc. (5.5)

Chapter 6:

ERIK TERK (PhD) is the Director of the Estonian Institute for Future Studies at Tallinn University. His main areas of research include future studies, connections between economic development and social and political developments, and development planning at the national and regional levels. (6.1, 6.2, 6.3, 6.6)

SIIM SIKKUT (BA Princeton University) is the Economy Expert at the Estonian Development Fund. His fields of research include the future trends of global economics and business. (6.2)

URMAS VARBLANE (PhD, Member of the Estonian Academy of Science) is a Professor at the University of Tartu Faculty of Economics and the Head of the Chair of International Business and Innovation. His main fields of research include the internationalisation of Estonian business, the role of direct investments in the restructuring of the economy, the national innovation system and innovation policy, and the economic integration and convergence process in the European Union. (6.3)

VIKTOR TRASBERG (PhD) is an Associate Professor at the University of Tartu Faculty of Economics. His main fields of research include public sector finances and the economics of the Baltic Sea Region. (6.4)

HEIDO VITSUR is an economist educated at the University of Tartu. His field of specialisation is macroeconomic trends in the world and in Estonia. (6.5)

Creative work competition *It's Good to Live in Estonia!*

For the third consecutive year, the Estonian Cooperation Assembly launched a creative work competition in November, this time entitled *It's Good to Live in Estonia!*

The goal of the competition was to promote Estonia as a human environment, to recognise the good in people around us, and to depict fond memories. The competition also offered people an outlet for their positive emotions.

The prizes for the competition were provided by Olympus, Nordic Hotels and Rahva Raamat.

Five topics were announced for competition entries:

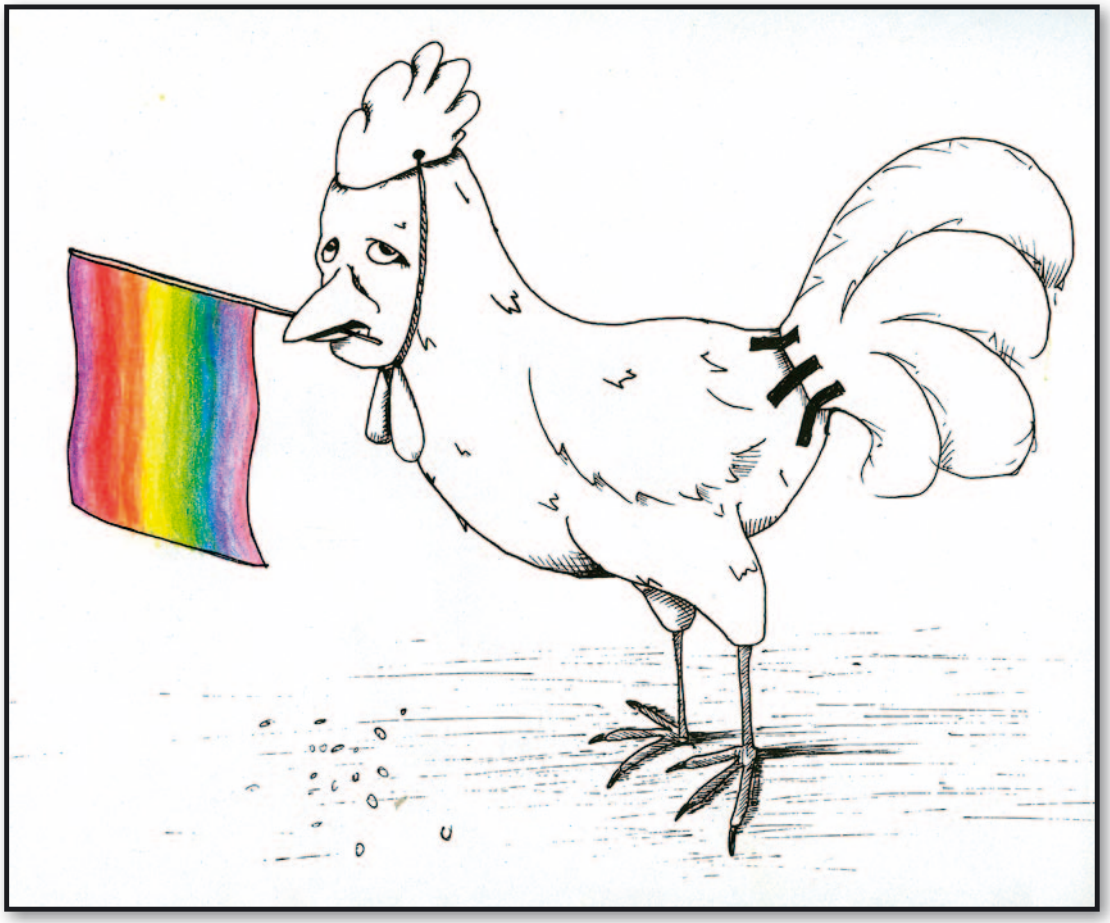
- Before and Now
- My Home is Dear to Me
- Estonia – a Good Place to Be!
- The Beauty of Estonian Nature
- We, the Peoples of Estonia

A panel of judges chaired by art scholar Marika Valk, Secretary-General of the Estonian National Commission for UNESCO, selected the best works from among the nearly five hundred entries submitted to the competition. The panel of judges also included artist Andres Tolts, Piret Tamm, representative of AS Eesti Ajalehed, Hanna-Stella Haaristo, representative of the Federation of Estonian Student Unions, and Marianne Kikas, representative of the Estonian School Student Councils' Union.

Winning entry

Eve Kõrts (55)

We, the Peoples of Estonia



Ahti Kiili (17), Pelgulinna Secondary School

Hendrik Saarnak (18)

Teele Järvpõld (19)

Mirjam Ool (20)

The Beauty of Estonian Nature

Hemely Leetna (6), Tartu Kindergarten Kannike

Annabel Rüütel (4), Walko Kindergarten

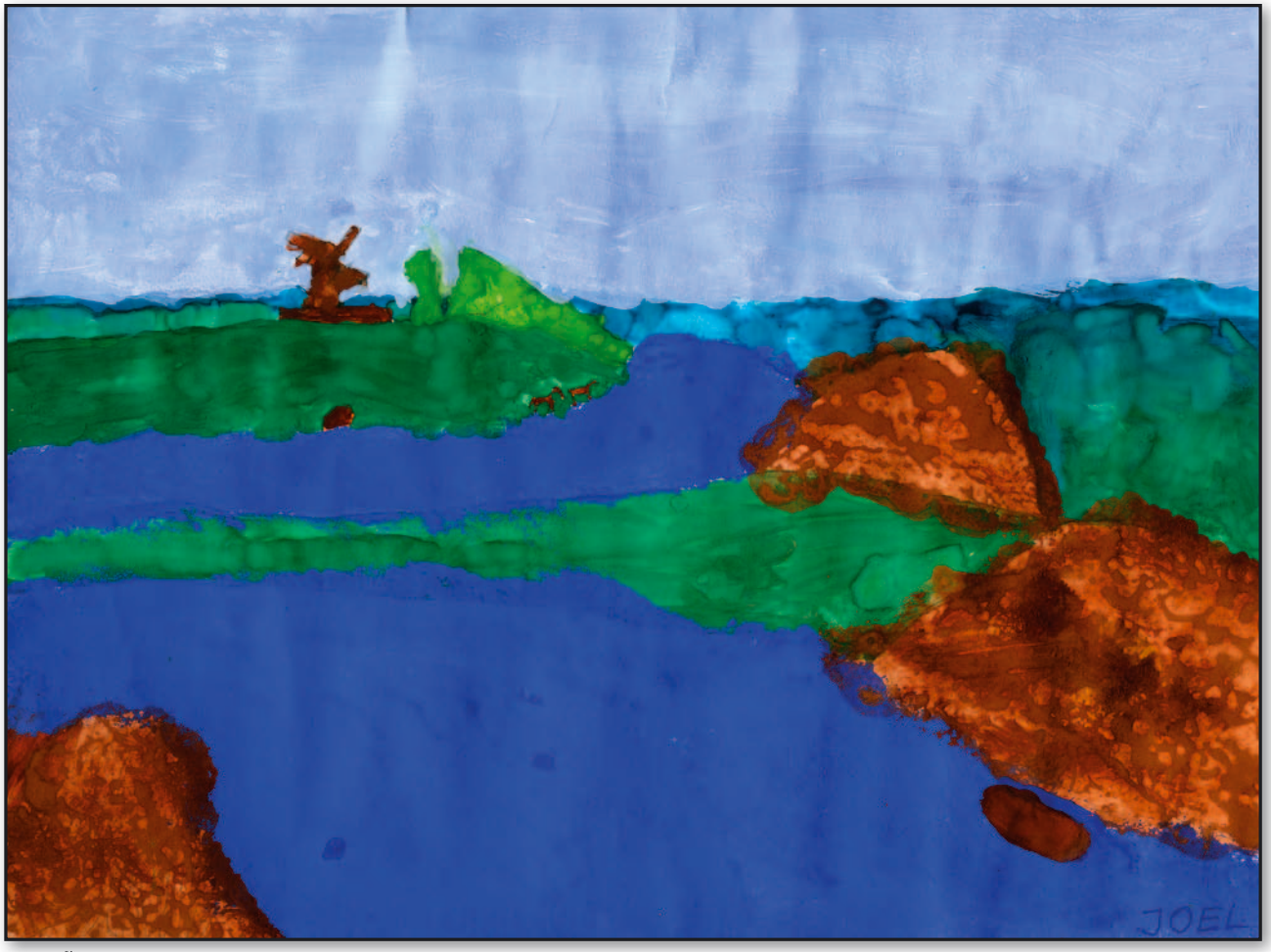
The Beauty of Estonian Nature

Anastasia Loskutov (5), Walko Kindergarten

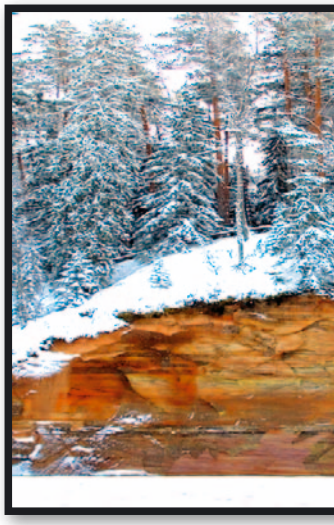
Kristjan Orrin (6), Tartu Kindergarten Kannike

Ulla Inger Veri (5)

The Beauty of Estonian Nature



Joel Õispuu (12), Paide Secondary School



Artjom Esholts (8), Kohtla-Järve School of Arts

Janek Kiss (19)

My Home is Dear to Me

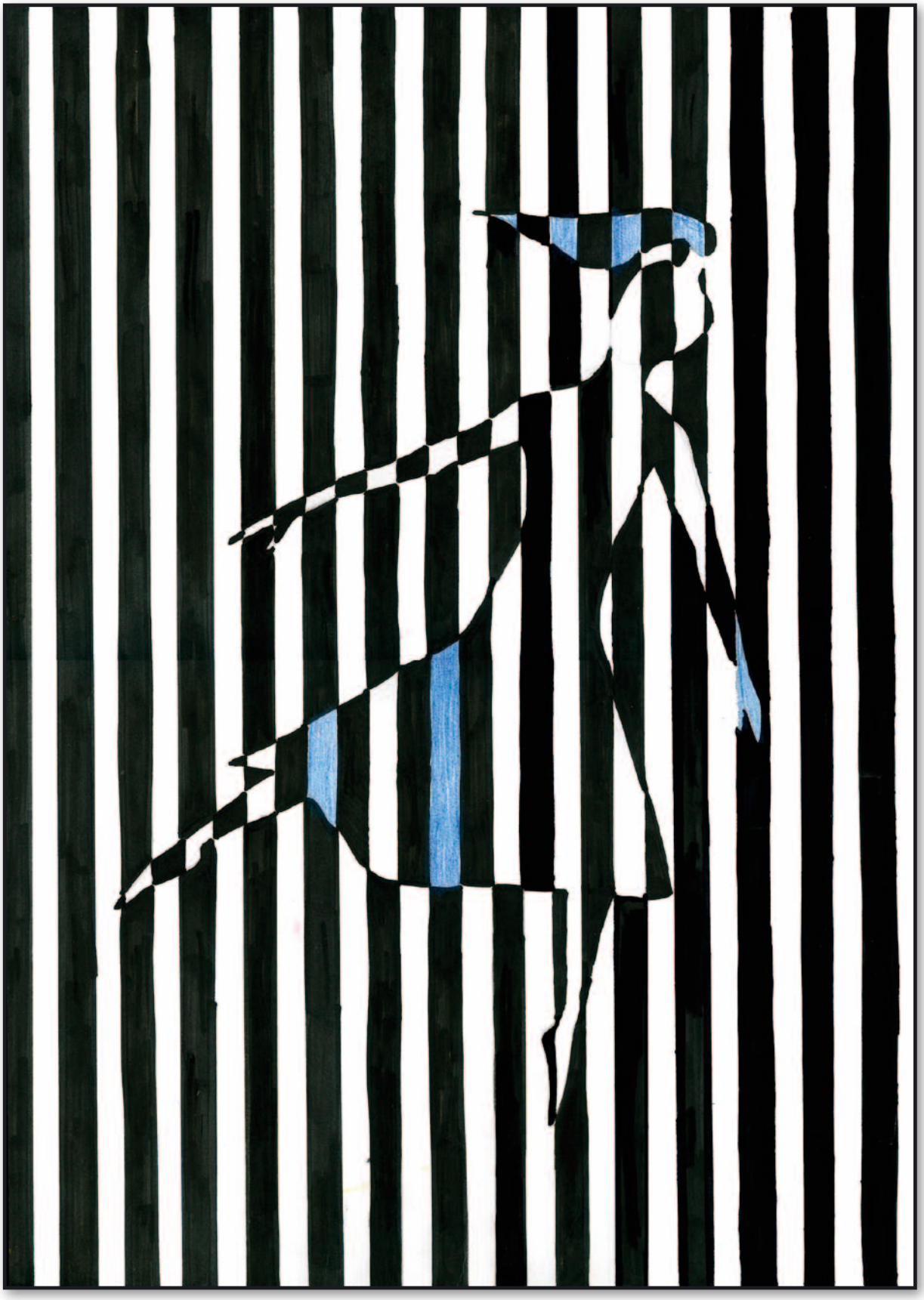
Liis Leppnurm (11), Pärnu House of Arts

Mait Rappu (7), Viimsi Secondary School

Triin Pukk (20)

Gertrud Luks (8), Pärnu House of Arts

Estonia – a Good Place to Be!



Janeli Voll (13), Pärnu House of Arts

Markus Kanne (9), Järva-Jaani Secondary School

Triin Paarmaa (33)

Before and Now

Liina Sõrmus (12), Pelgulinna Secondary School

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