40 Population and living standards

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Economic and population issues are inseparable. Economic and population change interact over time in a number of complex ways. These interactions have a very important impact on the dynamics of development and population change. For example, internal migration usually occurs as individuals and families respond to differences in economic and other opportunities in various locations. In spite of some similarities, the way any given relationship manifests itself in any particular country will depend on a wide range of unique local conditions.

In this chapter the population of the enlarged Baltic region, i.e. Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, St-Petersburg/Russian Federation, Sweden and Belarus will be considered. First, the demographic characteristics of the region will be given, then living standards will be analysed.

1. Population of the Baltic region and Russia

The total population of the 10 European countries covered in this chapter was estimated at around 304 million at the beginning of 1999, being equal to 37.5% of the population of Europe (here St-Petersburg is considered as part of the Russian Federation). The main demographic indicators for the populations of the Baltic region in regard to population size, population growth, fertility, mortality and migration; i.e. total population size, population growth rate, rate of natural increase (RNI) , rate of net migration, total fertility rate (TFR), life expectancy at birth (LE) for males and females, and infant mortality rate; are given in table 28.

Differences between populations considered are remarkable: in 1999 the population size varied from about 1.5 million for Estonia to the giant Russian Federation with 146.3 million; in 1998 the TFR varied from 0.95 in St-Petersburg to 1.72 in Denmark; life expectancy also differed within a wide range from 61.3 for males (72.9 for females) in Russia to 76.9 for males (81.9 for females) in Sweden. Moreover, in Russia the LE for females is lower than the LE for males in Sweden.

The present picture presents some contrasting features of population growth. While some countries report low growth rates as the combined result of positive natural and net migration increase (Denmark, Finland) or dominating positive natural/migrational increase (Sweden, Poland), the situation in other countries is one of successive declines. In some cases, declines in natural changes are mitigated by net migration (Germany, Russia, Lithuania, Belarus), while in others both natural and migrational increase are negative (Estonia, Latvia).

In any analysis of population changes one has to distinguish between countries in Western/Northern Europe with rather stable demographic development and the countries of Central and Eastern Europe where the demographic process was interrupted by the political, social and economic development in the 1990s (Recent Demographic Developments in Europe, 1999). Thus the TFR as well as LE for post-Soviet states are lower than for other populations of the region (LE in Nordic countries being higher than for Europe as a whole) while infant mortality is higher. There is a correlation between longevity and economic and social development. People in North and West Europe live much longer than in countries in Central and Eastern Europe, and particularly in post-Soviet states. Everywhere, females enjoy a longer life span, the gap between female and male life expectancy closing for Western and Nordic countries. But for post-Soviet states this gap has been substantial (e.g. for the Russian Federation, 1998, the life expectancy for men was lower than that for females by 11.6 years).

But some similarities can be also seen, e.g. fertility rates have been declining in all countries considered. The decline in infant mortality, that is an important indicator of standard and effectiveness of health services, has been general throughout countries of the region, the proportion of births outside marriage has increased due to the significant increase in the number of consensual unions, population ageing is progressing as will be shown below.

It should be mentioned that only Denmark, Finland and Poland have small positive natural increases while for other populations of the region the RNI is negative. In the situation of negative natural increase, the role of migration as a factor of population growth becomes extremely important and migrational issues should be of great concern to policy makers.

Generally speaking, population reproduction is determined by the reproduction regime (i.e. by fertility and mortality levels) and migration. But the population age-sex composition is a very important factor of population development. Thus, if the population of modern Russia with its low fertility and rather high mortality levels had the age-sex structure as in 1897 (when the proportion of population under 15 was 37.7% and that of 60 and over was 7.3%) its total size would not decrease.

Besides, for example, the structure of household consumption demand of a population group could change as a result of shifts in the group's age structure. Since consumption preferences vary among persons at different stages of the life cycle, the demand for various consumption goods and services would change as the proportions of a group's members change at different years of age (United Nations, 1989).

Population age structures by major age groups (0-14, 15-64, 65+) are given in Table 29. For Europe as a whole, without Russia, the proportion of age group 0-14 being 18%, the population of the extended Baltic region has a higher percentage of children (except for St Petersburg) while the proportion of the elderly (65+) is higher than for Europe (without Russia) only in Germany and Sweden.

In all developed countries the steady increase of proportion of the elderly in the total population, called demographic ageing, has been observed. It is widely recognised that population ageing is one of the most important features of demographic dynamics which has multilateral longitudinal economic, social and political implications.

A number of quantitative characteristics of the process of ageing are given in Table 29. The simplest but very informative characteristic is the proportion of population 60+ (65+) in the total population. Another important characteristic of ageing is the ageing index showing the number of elderly per child multiplied by 100. For social and economic analysts dependency ratios (i.e. the number of children and/or elderly divided by the working

Table 28. Main demographic indicators for the Baltic region

Country, year	Population (thousands)	Population Growth rate, per 1000 (1)	RNI (2)	Rate of net migr. per 1000 (3)	TFR (4)	L E for males (5)	L E for females (5)	infant mortality rate, per 1000 (6)
Denmark								
1975	5054.4	2.5	4.2	–1.7	1.92	71.3	77.0	10.4
1980	5122.1	0.3	0.3	0	1.55	71.2	77.2	8.4
1985	5111.1	1.0	–0.9	1.9	1.45	71.6	77.5	8.0
1990	5135.4	2.1	0.5	1.6	1.67	72.0	77.8	7.5
1995	5215.7	6.7	1.3	5.4	1.80	72.8	77.9	5.1
1998	5313.6*	3.5	1.5	2.0	1.72	73.7	78.6	4.7
Estonia								
1975	1424.1	7.4	3.3	4.0	2.04	64.8	74.6	18.2
1980	1472.2	6.8	2.7	4.1	2.02	64.1	74.1	17.1
1985	1523.5	6.9	2.8	4.1	2.12	65.5	74.8	14.1
1990	1571.6	–0.8	1.8	–2.5	2.05	64.6	74.6	12.4
1995	1491.6	–10.3	–4.9	–5.4	1.32	61.7	74.3	14.8
1998	1445.6*	–5.7	–5.0	–0.7	1.21	64.4	75.5	9.3
Finland								
1975	4702.4	3.8	4.6	–0.8	1.68	67.5	76.2	9.6
1980	4771.3	3.4	3.9	–0.5	1.63	69.3	77.9	7.6
1985	4893.7	3.5	3.0	0.5	1.64	70.2	78.7	6.3
1990	4974.4	4.8	3.1	1.7	1.78	71.0	78.9	5.7
1995	5098.8	3.5	2.7	0.8	1.81	72.8	80.2	3.9
1998	5159.6*	2.4	1.5	0.9	1.70	73.5	80.8	4.2
Germany								
1975	78882.2	–5.3	–2.6	–2.7	1.48	68.6	74.0	18.8
1980	78179.7	2.8	–1.1	3.9	1.56	68.7	74.6	12.5
1985	77709.2	–0.6	–1.5	0.9	1.37	69.6	75.4	9.1
1990	79112.8	8.1	–0.2	8.3	1.45	69.2	76.2	7.1
1995	81538.6	3.4	–1.5	4.9	1.25	71.2	78.5	5.3
1998	82037.0*	–0.2	–0.8	0.6	1.33	72.4	79.5	4.7
Latvia								
1975	2447.7	6.8	1.9	4.9	1.96	64.2	74.3	20.3
1980	2508.8	2.3	1.4	1.0	1.90	63.6	73.9	15.4
1985	2570.0	6.9	2.2	4.7	2.09	65.5	74.5	13.0
1990	2673.5	–2.1	1.2	–3.3	2.02	64.2	74.6	13.7
1995	2529.5	–11.1	–6.9	–4.2	1.25	60.8	73.1	18.5
1998	2439.4*	–7.7	–6.4	–1.3	1.09	64.1	75.5	14.9
Lithuania								
1975	3288.5	8.0	6.2	1.8	2.20	–	–	19.6
1980	3402.2	5.3	4.7	0.6	2.00	65.5	75.4	14.4
1985	3528.7	8.9	5.4	3.5	2.10	65.5	75.4	14.2
1990	3708.2	7.6	4.6	3.0	2.00	66.6	76.2	10.3
1995	3717.7	–1.6	–1.1	–0.5	1.49	63.5	75.2	12.5
1998	3700.8*	–0.9	–1.0	0.2	1.36	66.5	76.9	9.2

Table 28. Main demographic indicators for the Baltic region

Country, year	Population (thousands)	Population Growth rate, per 1000 (1)	RNI (2)	Rate of net migr. per 1000 (3)	TFR (4)	L E for males (5)	L E for females (5)	infant mortality rate, per 1000 (6)
Poland								
1975	33845.7	10.0	10.2	–0.2	2.27	67.0	74.3	29.0
1980	35413.4	9.0	9.6	–0.6	2.28	66.0	74.4	25.5
1985	37063.3	7.5	8.0	–0.5	2.33	66.5	74.8	22.0
1990	38038.4	3.8	4.1	–0.3	2.04	66.5	75.5	19.3
1995	38580.6	0.7	1.2	–0.5	1.61	67.6	76.4	13.6
1998	38667.0*	0.2	0.5	–0.3	1.43	68.9	77.3	9.5
Russia								
1975	133634.0	6.8	5.9	0.9	1.97	62.3	73.0	23.7
1980	138122.0	5.2	4.9	0.3	1.86	61.5	73.1	22.1
1985	142519.2	7.0	5.2	1.8	2.05	63.8	74.0	20.7
1990	147762.5	–2.2	2.3	–4.4	1.90	63.8	74.3	17.4
1995	147938.5	–2.2	–5.7	3.5	1.34	58.3	71.7	18.1
1998	146327.6*	–2.8	–4.9	2.1	1.24	61.3	72.9	16.5
Sweden								
1975	8176.7	3.9	1.9	2.0	1.77	72.2	77.9	8.6
1980	8303.0	1.8	0.6	1.2	1.68	72.8	78.8	6.9
1985	8342.6	1.9	0.5	1.3	1.74	73.8	79.6	6.8
1990	8527.0	7.4	3.4	4.1	2.13	74.8	80.4	6.0
1995	8816.4	2.4	1.1	1.3	1.73	76.2	81.4	4.1
1998	8854.3*	0.8	–0.5	1.2	1.51	76.9	81.9	3.5
Belarus								
1975	9345.2	4.6	7.1	–2.5	2.20	66.9	76.0	18.8
1980	9621.8	7.6	6.1	1.5	2.00	65.9	75.5	16.3
1985	9968.9	6.0	5.9	0.0	2.07	66.7	75.5	14.5
1990	10259.3	0.1	3.2	–3.1	1.91	66.3	75.6	11.9
1995	10345.1	–3.2	–3.2	0.0	1.39	62.9	74.3	13.3
1998	10227*	–2.4	–4.4	1.9	1.27	62.7	74.4	11.3
St Petersburg								
1976	4417.9	12.0	3.5	8.5	–	–	–	–
1980	4614.2	1.9	2.2	–0.3	1.5	63.6	73.3	20.5
1985	4816.7	7.6	2.3	5.3	1.7	65.1	73.9	19.1
1990	5002.4	–0.1	–1.4	1.3	1.5	65.2	74.3	18.0
1995	4805.2	–7.6	–9.0	1.4	1.0	59.9	72.3	13.8
1998	4695.4*	–4.3	–7.2	2.9	0.95	63.8	74.4	11.4

Sources: Levy M. 1999; Main Indicators of Demographic Processes in St Petersburg and Leningrad Region, 1990-1999; Recent Demographic Developments in Europe, 1999; Sardon, 2000; The Demographic Yearbook of Russia, 1999; United Nations, 1999.

* – for 1999

(1). Growth rate – the rate at which a population is increasing (or decreasing) in a given year due to natural increase and migration, expressed as a percentage of the base population or per 1000 inhabitants;

(2). RNI, the rate of natural increase, the surplus (or deficit) of births over deaths within a population in a given time period, i.e. the difference between crude birth and death rates. Crude birth (death) rate is obtained by dividing the number of births (deaths) during a given year by the average population and is expressed per 1000 inhabitants;

(3). Net migration – the difference between the number of immigrants and emigrants in a given time period per 1000 inhabitants;

(4). TFR, the total fertility rate, the average number of children that would be born alive to a woman during her lifetime if she were to pass through her childbearing years conforming to the age-specific fertility rates of a given year;

(5). Life expectancy at birth – the mean length of the life of individuals who are subjected since birth to current mortality trends;

(6). Infant mortality rate – ratio of deaths during one year of age to the number of live births of the same year (Recent Demographic Developments in Europe, 1999).

age population, in per cent) are of great interest. Some of these ratios are connected with ageing, i.e. old-age dependency and the proportion of old-age dependency in the total dependency ratio. The lowest proportions of population aged 60+ (65+) are in Poland and Russia, the highest ones in Germany and Sweden.

The primary needs of the people, which the development programmes aim to satisfy, cannot be gauged rationally without regard to the expected size and composition of the population, nor can national resources be appraised adequately without considering labour, the supply of which depends primarily on population size and structure (United Nations, 1956). Thus, population projections are made taking into account different changes in the main demographic processes (fertility, mortality and migration). Since the 1950s the UN Population Division has regularly made world population projections. The UN projections consist of four variants, i.e. constant-variant, low, medium and high variants related to hypotheses of fertility change (United Nations, 1999).

According to the UN medium-variant (1998 Revision) by 2025 the total population size of the region considered as well as that of Europe as a whole, will decrease by 4% as compared with the estimated population size in 2000. At the same time, the population size of Finland, Poland and Sweden will increase slightly. In 2025 the proportion of the region's population in the total population of Europe will be 42%, i.e. it will be higher than it was in 1999.

Figure 140 shows the population pyramids for Russia in 1997 and 2025 (the UN medium-variant projection, 1998 Revision), clearly demonstrating population ageing. Population ageing under all projections is expected to continue thereby affecting the labour market, pension system, health services and other social institutions. Values of the ageing characteristics for 2025 are given in Table 29.

Glossary

Gross National Product, GNP, the broadest measure of national income, measures total value added from domestic and foreign sources claimed by residents. GNP comprises GROSS DOMESTIC PRODUCT,(GDP), (see below) plus net receipts of primary income from non-resident sources.

GNP per capita is GNP divided by mid-year population.

Gross Domestic Product, GDP, is the most widely used concept of national income defined in the System of National Accounts. It measures the final total output of services and goods produced by a country during a certain period and is calculated without making deductions for depreciation.

GDP measured at ***Purchasing Power Parity***, PPP, means that GDP is converted into U.S. dollars by the PPP exchange rate whereby one dollar has the same purchasing power over domestic GDP that one U.S. dollar has over U.S. GDP, also referred to as international dollar.

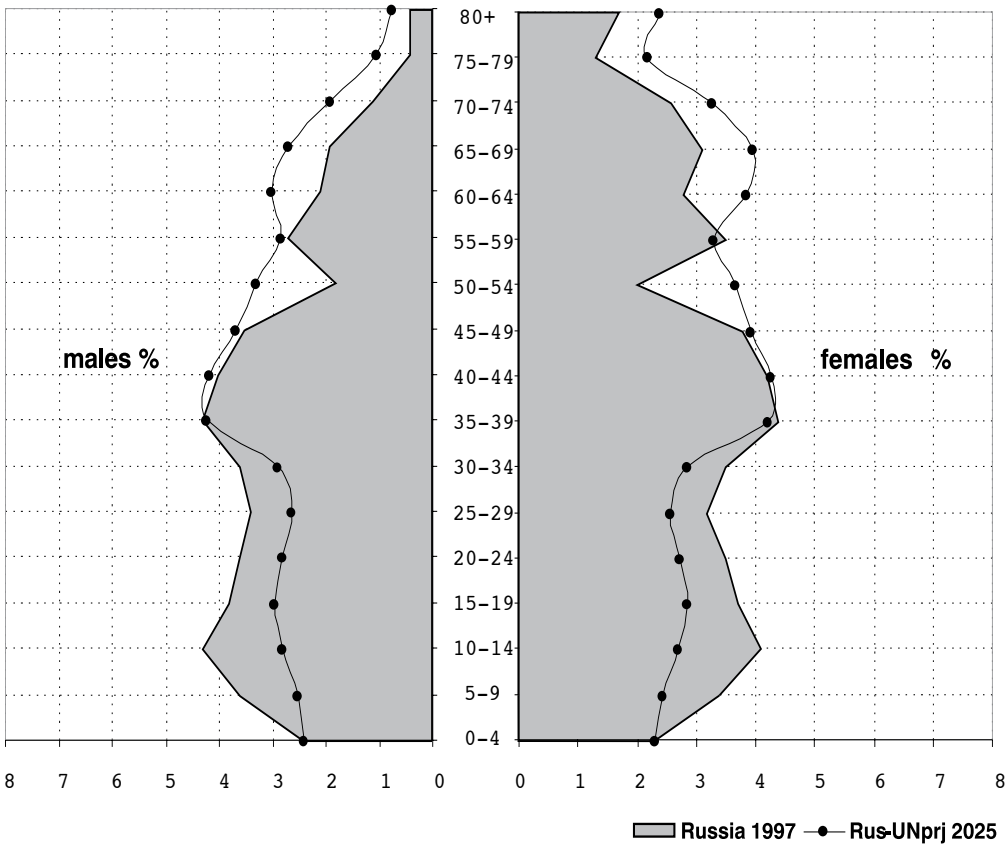

Figure 140. Population pyramids for Russia, 1997 and 2025

For all countries of the region the percentage of the elderly (65+) will increase by 40-60 per cent compared with the percentage in 1999. It is remarkable that for the whole region except for Latvia and Belarus the proportions of 65+ in 2025 are higher than the proportions of 60+ in 1999.

The increase in the total dependency ratio does not exceed 40 per cent, while the increase in old-age dependency is greater than 37% reaching 84% for Finland. Besides, in 1999 the old-age dependency did not exceed half of the total dependency (being equal to only 50 per cent for Germany) but in 2025 it will constitute more than 50 per cent of the total dependency for all countries of the region (reaching 64% of the total for Germany).

The analysis of a population should also include consideration of marriages and divorces affecting the process of family formation. A very important characteristic of a population is its family structure. The family is a mediator between an individual and society. For elaboration of an effective demographic/family policy as well as for many other tasks related to employment, education, public health and different programmes aimed at the improvement of living standards, knowledge of family structure and its changes is required.

Table 29. Population structure by major age groups for 1999 and ageing characteristics for 1999 and 2025 (the UN medium-variant projection)

	1999								2025				
	proportion by age group (%)			proportion (%)	dependency ratios			ageing index	proportion (%)	proportion (%)	dependency ratios (for 2025–2030) percentage		
	0-14	15-64	65+	60+	0-14 of 15-64	65+ of 15-64	0+14 and 65+ of 15–64		60+	65+	0-14 of 15-64	65+ of 15-64	0-14 and 65+ of 15-64
Denmark	18.2	66.9	14.9	19.7	27.2	22.2	49.4	81.7	28.7	21.7	26.0	34.8	60.8
Estonia	18.6	67.1	14.3	19.9	27.7	21.3	49.0	76.9	27.5	20.3	19.9	30.6	50.5
Finland	18.4	66.9	14.7	19.6	27.6	22.0	49.6	79.8	30.7	24.0	28.0	40.4	68.4
Germany	16	68	16	23	23.5	23.5	47.0	100	31.8	23.4	21.1	37.0	58.1
Latvia	18.5	67.0	14.5	20.3	27.7	21.6	49.3	78.2	26.8	19.6	21.9	29.7	51.6
Lithuania	20.4	66.5	13.1	18.2	30.6	19.6	50.2	64.1	26.0	18.9	22.4	28.4	50.8
Poland	20.3	67.8	11.9	16.4	30.0	17.5	47.5	58.4	25.3	19.4	24.2	30.0	54.2
Russia	19.0	68.5	12.5	18.0	27.8	18.3	46.1	65.9	25.0	18.1	22.7	27.2	49.9
Sweden	18.6	64.0	17.4	22.1	29.1	27.1	56.2	93.3	30.9	24.3	26.1	40.4	66.5
Belarus	19.6	67.3	13.1	18.5	29.4	19.7	49.1	66.9	24.9	18.0	23.1	27.0	50.1
St Petersburg	15.2	70.4	14.4	20.5	21.6	20.4	42.0	94.7	–	–	–	–	–

Sources: see Table 28

2. Living standards

An increase in the standard of living is the priority aim of development. Any improvement in living standards is not just a result of economic growth but is also an important precondition. The standard of living is a composite indicator characterising welfare and quality of life. Measurement of living standards gives an opportunity to assess the effects of socio-economic changes in a society on population, to evaluate economic differentiation of a society, to compare living conditions in different regions.

The standard of living is a complex socio-economic concept expressing the extent of satisfaction of material and spiritual needs of people. There are a number of approaches to the definition of the standard of living depending on different basic concepts, e.g. production, consumption, income, cost of living and others. Ultimately, the standard of living is determined by the development of productive forces but it is displayed in characteristics of consumption. Living standards are determined not only by activities of individuals, households, firms but by the efficiency of economy and national wealth. Thus, countries with effective economies and great social wealth can provide their citizens with higher living standards than less economically developed ones.

There is no unified universal indicator or a system of living standards. Rather, detailed systems of living standards usually include the following main directions related to income, cost of living, consumption, poverty, characteristics of social infrastructure, medical and demographic characteristics of population, ecological characteristics and security (V. Zherebin and N. Yermakova, 2000; Social conditions and living standards, 1998):

- Basic macro-economic indicators (e.g. GDP per capita, consumer price index, the number of unemployed);
- Main economic indicators related to
  - income (e.g. money income per capita),
  - property (e.g. real estate, cars),
  - cost of living (e.g. living wage),
  - consumption, including nutrition (e.g. the structure of expenditures, daily calorie supply per capita, food consumption as a percentage of total household consumption)
  - correlation of income and living wage,
  - social security benefits,
  - income differentiation (e.g. Gini coefficient showing how close a given distribution of income is to absolute equality or inequality),
  - poverty (e.g. percentage of population with income below living wage);
- Indicators of living conditions, i.e. provision of infrastructure objects, personnel and technical means of social and cultural branches (including housing, health services, educational institutions, retail trade, public transport);
- Indicators of development of social sphere (e.g. proportions of health, education, science, culture expenditures of GDP);
- Medical and demographic indicators (e.g. life expectancy at birth, infant mortality rate, the rate of mortality by suicide);
- Ecological indicators (e.g. air, water pollution);
- Security indicators (e.g. the annual number of registered crimes, the rate of mortality by homicide).

Table 30. Selected living standards for Russia and St Petersburg

	Russia							St Petersburg
	1991	1992	1993	1994	1995	1996	1997	1998/1999
GDP (percentage of the preceding year)	95	85.5	91.3	87.3	95.9	96.5	100.8	
Consumer price index (December of the December of the preceding year, times)	2.6	26.1	9.4	3.2	2.3	1.2	1.1	2.3 (1)
Number of unemployed (thousands)	–	3594	4160	5478	6431	7280	8180	
Correlation between income per capita and living wage (%)	–	210	219	238	195	206	225 (170)*	143
Population with income below living wage (% of the total population)	–	33.5	31.5	22.4	24.7	22.1	20.8	33.2
Living space (sq. m)	16.5	16.8	17.4	17.7	18.1	18.3	18.6	18.6 (1)
Doctors per 1000 inhabitants	4.4	4.3	4.3	4.3	4.5	4.5	4.6	7.1 (1)
LE for males	63.5	62.0	58.9	57.6	58.3	59.8	60.8	63.8
LE for females	74.3	73.8	71.9	71.2	71.7	72.5	72.9	74.4
Infant mortality rate (per 1000 births)	17.8	18	19.9	18.6	18.1	17.4	17.2	11.4
Rate of mortality by suicide (per 100000)	26.4	26.5	31	38.1	41.4	39.4	37.6	19.3 (2)
Number of state institutions of higher education	519	535	548	553	569	573	578	42 (2)
Number of registered crimes (thousands)	2173	2761	2800	2633	2756	2625	2397	78.7 (2)
Rate of mortality by homicide (per 100000)	15.2	22.8	30.6	32.6	30.7	26.6	23.9	18.5 (2)

Sources: Chaisnais J-P., 2000; Social Conditions and Living Standards, 1998; Peterburgkomstat, 2000
* – for 1999
(1) – for 1995
(2) – for 1997

Living standards for the countries of the region differ greatly. Living standards in the Nordic countries are the highest in the region while for the post-Soviet states they are much lower. Thus, for example, consumer price index (percentage 1996 of 1990 not exceeding 125) for Denmark, Germany, Finland and Sweden amounted to 5669 times for Russia (Russia and Countries of the World, 1998). In the 1990s the Gini coefficient for the Nordic countries

was about 25 while for Russia it was 39.9, indicating a higher differentiation of income in Russia.

Special attention should be paid to a very important indicator of the standard of living – HDI (Human Development Index). The HDI, introduced in 1990, is a composite measure containing indicators representing three equally weighted dimensions of human development (United Nations Development Programme, 1990 and later) – longevity (life expectancy at birth), knowledge (adult literacy and mean age of schooling) and income (purchasing power parity dollars per capita).

Though not being an exhaustive measure of the state of living, the HDI reflects basic aspects of human development. Besides, being regularly computed following the same methodology and included in Human Development Reports, it makes international comparisons possible. Thus, in the 1990s the HDI for Denmark, Germany, Finland and Sweden was greater than 0.9 while for post–Soviet states it was lower than 0.8, Poland occupying an intermediate position. Consideration of the components of the HDI shows that differences in the HDI values for the countries of the region resulted from differences in income while their educational levels were close (*Russia and countries of the world*, 1998).

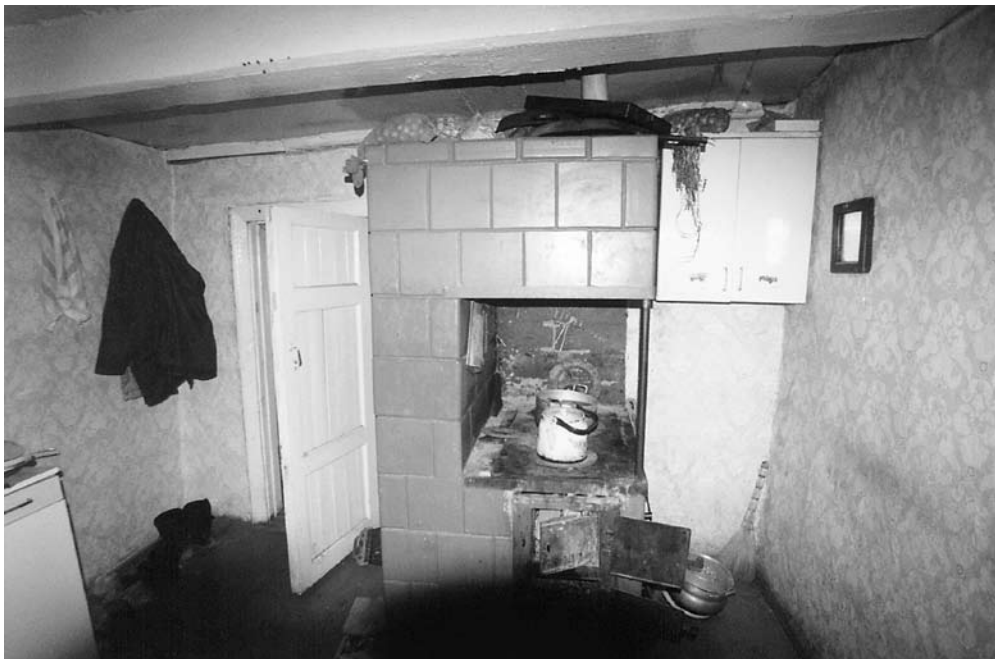

Figure 141. In the so-called new democracies living conditions are still diversified. Interior of a Lithuanian house in the country side. Photo: Alfred F. Majewicz

Unfortunately, differences in the methodology of computation of separate indicators and in ways of their aggregation in general make comparisons of living standards in different countries difficult.

It should be mentioned that the social well-being of the family, being a component of the quality of life, after reaching a certain welfare level, society should pay particular attention to the psychological, social and moral aspects of life.