

# Real Income and Population Prospects in the Baltic Sea Area

PEKKA PARKKINEN

Research Chief

Government Institute for Economic Research

Helsinki, Finland

## Abstract

The nine nations bordering on the Baltic Sea differ greatly in regard to both their population and their economic situation. Russia has one hundred times the population of Estonia and in Denmark the real income per capita is six times that of Latvia. When measured by real income per inhabitant, the poor Baltic countries are about half a century behind their rich neighbors, so that there is marked economic pressure to emigrate to these rich neighboring countries. In these poor transition economies the birth rate has plummeted during the last few years and the difference in life expectancy compared to the rich neighboring countries has increased. Even in a situation of rapid economic growth, it is not at all certain that the fertility rate will return to its earlier level.

Keywords: real income, fertility rate, population prospects, Baltic Sea area

## Introduction

After World War II a market economy was built on the western and northern shores of the Baltic and real socialism on its other shores. After the collapse of the Soviet Union these other shores have also been turning to capitalism. Now that the contest between the two social systems has come to an end, efforts are being made here to improve the inhabitants' well-being through market economy means alone.

In transition economies capital accumulates with capitalists and investments are made on roads, energy networks, and the other infrastructure of society. The aim is that this will lead to more rapid growth in the economy, so that consumption could later be increased and the material well-being of the population be improved. As the large expenditure of the East German economic system has shown, it is expensive to change over from real socialism to capitalism. This is why it may take even longer than we expect to conquer poverty on the eastern coast of the Baltic.

This article uses recent statistics to examine the population of the Baltic Coast states, their real income, and the size of their economies. The prospects for development in the transitional countries are evaluated using Finnish economic history. For now, the conclusions concerning these economies merely show dimensions and trends, for the economic statistics for these countries are incomplete and only some aspects are comparable with statistics concerning the other industrial countries. For example, the underground economy, which is missing from the economic statistics, is probably significant in all transition economies.

As real socialism collapsed, there was a great change in the population factors also. Cur-

rently, the fertility rate in the transition countries is exceptionally low compared to what it has been in these countries historically, as well as compared to the fertility rate in other countries. In addition, life expectancy has occasionally declined in some transition countries. Later we will also discuss population prospects in the poor countries of the Baltic area.

### Population and real income in the Baltic countries

The nine nations bordering on the Baltic Sea have a total of 300 million inhabitants or five percent of the world population. Estonia, with the smallest population, has under one-and-a-half million inhabitants, while Russia, which extends to the Pacific Ocean, has one hundred times as large a population. Germany has over 80 million inhabitants and Poland almost half as many. The other Baltic countries of Sweden, Denmark, Finland, Lithuania, and Latvia are countries with less than nine million inhabitants (Table 1).

Earlier the economic well-being of the population of different countries was compared using the gross national product per capita. This measure is becoming obsolete. This is because it underestimates the income in poor countries, where food, housing, and numerous other commodities are usually markedly less expensive than in the wealthy countries. The value of the gross national product in different countries is hardly ever comparable, because the prices of the same commodities are different.

Currently the wealth of different countries and the economic well-being of their citizens is estimated with the gross national product GNP (PPP) per inhabitant, based on purchasing power parity estimates (OECD 1992). In these estimates the price differences between the various countries are removed by giving the same commodities the same price in different countries, so that over- or undervaluation of currencies can be eliminated. Because this removes the differences in the price levels, production amounts are then comparable, and the calculated value of production will then describe the real income of the nation.

The OECD publishes regular estimates of purchasing power parity based on many-faceted statistical data on its member states (OECD 1997). For now, estimates concerning other countries still have to be drawn up using incomplete statistical data, so that the reliability of the results can sometimes be quite weak. Even so, the World Bank has published estimates of the gross national product per inhabitant for the states on the eastern coast of the Baltic, in terms of purchasing power parities in US dollars (World Bank 1997).

In the Baltic countries the per capita real income varies greatly according to World Bank estimates (Table 1). In 1995 the wealthiest country on the Baltic was Denmark, which produced a per capita income estimated at a purchasing power parity of USD 21,230. In united Germany the real income per inhabitant was a few percent smaller. Sweden and Finland produced over one-eighth less real income per citizen than Denmark. The other Baltic countries are truly poor according to the World Bank assessment. Poland is the wealthiest, but it still only produces a per capita real income one-fourth that of Denmark. The poorest Baltic country, Latvia, was able to produce an income of only USD 3,370 per capita or less than one-sixth of the income of Denmark.

When the estimated real income per capita is multiplied by the number of inhabitants, we arrive at the real production of the economy and its value in real income, which is usually used to measure the size of different economies. Among the countries bordering on the Baltic the biggest economically is Germany, which produces over 56 percent of the total real income in these countries. Russia's corresponding share remains under 23 percent. Of the countries being compared the third largest economically is Poland, whose share of the real income of the Baltic states rises to over 7 percent. The smallest countries, Estonia, Latvia, and Lithuania, together produce only one-hundredth of the total income of the Baltic area countries.

Even though the population of the United States is smaller than that of the countries bordering on the Baltic Sea, US production estimated as purchasing power parities is more than twice the total production of the Baltic states.

Table 1. Baltic economies in 1995.

	Population Millions	Gross national product	Purchasing power parities	
		per capita USD	Total USD billions	Total %
Denmark	5.2	21,230	111	3.8
Germany	81.9	20,070	1,643	56.5
Sweden	8.8	18,540	164	5.6
Finland	5.1	17,700	90	3.1
Poland	38.6	5,400	209	7.2
Russia	148.2	4,480	664	22.8
Estonia	1.5	4,220	6.3	0.2
Lithuania	3.7	4,120	15	0.5
Latvia	2.5	3,370	8.5	0.3
Total	295.6	9,850	2,911	100.0

The gulf between the living standard of the wealthy and the poor Baltic countries can also be seen in statistics describing other living conditions. Life expectancy, for example, which is a better measure of quality of life than real income per inhabitant, was 75–79 years in 1995 in the wealthy countries being compared and 65–70 years in the poor countries being compared (World Bank 1997).

### Development of real income in Finland

How much real income per inhabitant has been generated in Finland during its economic history, when measured by the size of the gross national product per capita? Professor Riitta Hjerpe has published (1996) a series describing the economy in 1860–1994, which can be continued to 1996 using the national product estimates made by Statistics Finland (1997). During such a long period the societies have gone through profound changes, so that the real income per capita based on the national product estimates can provide one description, though incomplete, of the development of material well-being. On the one hand, domestic work, which is not included in the national product estimates, has moved onto the market, so that the development of real income is overestimated. On the other hand, in the national product estimates the improvement in the quality of products has mainly been interpreted as a rise in prices, so that the development of real income is underestimated.

Figure 1 shows the historical series and, in addition, an estimate of the development of real income per Finn to the year 2010, with the real income per capita in 1995 corresponding to 100. In this estimate it is assumed that, in the future, the gross domestic income will grow at a rate of three percent a year, which has been the average growth rate in Finland during the 20th century. In calculating real income per capita, we also need a population forecast, which is described in more detail in a recent article (Parkkinen 1997). This forecast is based on a self-sufficient population, on the current fertility rate, and a continuous lengthening of life expectancy. In 2010 the life expectancy of a newborn would be almost three years more than it is now and the population a couple of percent greater than now.

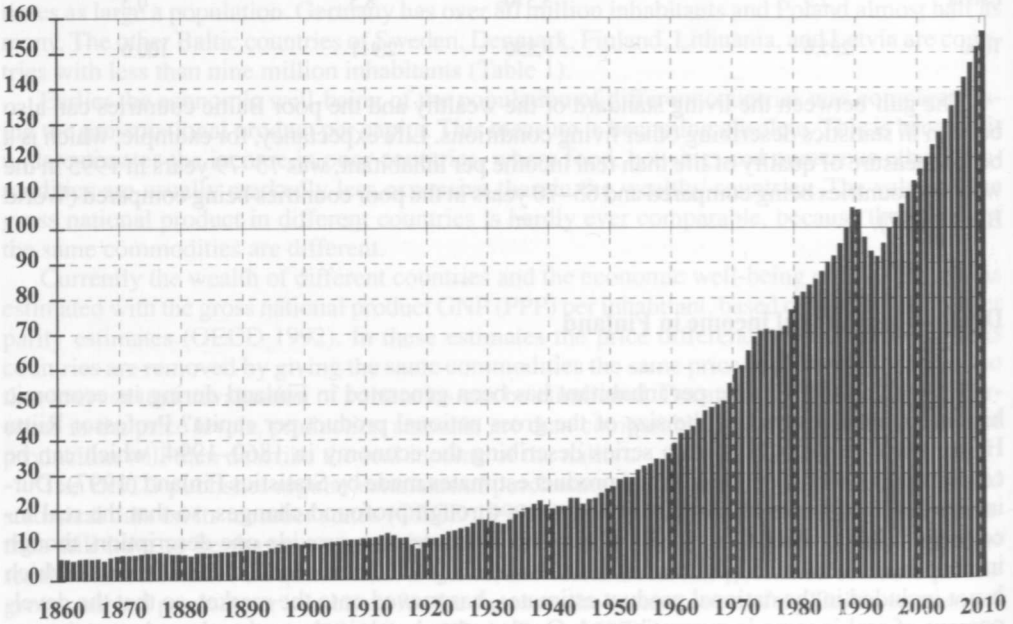
When measured by the size of the gross domestic product per capita, the material life standard of the Finns has improved substantially in the long term. According to this measure, the amount of real income per capita produced in 1995 was 17 times what it was in 1860. Compared to the beginning of the century, the change has been about tenfold and almost fivefold since the end of World War II.

As can be seen in Figure 1, there have been times when the material well-being of the Finns has dropped drastically. The real income per inhabitant in 1918, during the Civil War, fell to the 1890 level, even though the adversaries in the Civil War tried everything in their means to decrease the population. In 1932 the product per capita dropped back to the 1927 level because of the worldwide depression. The 1938 level of the product per capita was not reached again

until 1946 after World War II. The latest great depression hit Finland in the early nineties. Not until 1997 has the product per capita been greater than in the record year of 1989.

According to Table 1 the Finnish economy succeeded in 1995 in producing a per capita average of USD 17,700, which is shown in Figure 1 by the index 100. In this figure the size of the Finnish product is shown at 1995 prices for the years 1860–2010. This allows us to place the purchasing-power income per inhabitant for 1995 in the other Baltic countries within the framework of Finland's economic history.

Figure 1. Gross national product per inhabitant in Finland in 1860–2010, Index (Finland 1995) = 100.



Denmark, the richest country in the comparison, thus produced USD 21,230 per capita in 1995. This has an index value of 120 when Finland's corresponding income in 1995 is given the value of 100. If Finland's economy and population were to develop according to the assumptions made above, in the year 2001 Finland would produce the same amount of real income per capita as Denmark in 1995. Finland would reach Germany's standard of material well-being at the time in 1999 and Sweden's in 1997.

The poor Baltic area countries can also be placed in Finland's economic history in the same way. In 1995 Poland produced the same amount of real income per capita as Finland in 1954. Russia's, Estonia's, and Lithuania's real income per inhabitant has reached the level found in Finland's economic history about half a century ago. Latvia's real income per capita was exceeded by Finland sixty years ago. Real income comparisons going back many decades into the past naturally show only approximate magnitudes, for the major portion of the current real incomes of poor countries derives from products and services not even existing decades ago.

### Prospects related to the population in the poor Baltic countries

According to purchasing power parity estimates, the areas of the former Soviet Union and Poland are truly poor compared to the four other Baltic area countries. Even if economic

growth were extremely rapid in these poor countries, it would take decades before they would reach the current real incomes per capita of the other Baltic area countries. Because the rich countries also will probably continue to prosper, there will still be rich and poor nations living on the borders of the Baltic Sea several decades from now. In addition, inequality exists in all countries. In the future, also, there will be rich people living in the poor countries of comparison, and not all the people living in the rich countries of comparison will be doing well economically.

Vast differences in economic well-being naturally give rise to a willingness to migrate from the poor Baltic countries to the rich neighboring countries. Migration will not necessarily rise to great heights, though, because it is hampered by language, educational, and other differences between the rich and poor Baltic countries. Emigration is also decreased by transfers of capital to the poor countries, when especially production needing little skilled labor is moved there. In addition, it appears that what information technology and other technological development decreases the most is the demand for poorly skilled labor. This is why there is an abundance of unemployment in the rich countries among those whose educational level is lower than average or whose training has already become obsolete.

In the poor Baltic area countries, the birth rate has plummeted in the nineties, at the same time that they have been transferring over to a market economy. Lately the average total fertility rate in these countries has dropped to under 1.4 and in Latvia under 1.2. It is not at all certain that there would be a return to the previous level, even under conditions of rapid economic growth. The population in fertile age may permanently consider consumption preferable to having children. Another factor is that these countries cannot really afford to support fertility with family policy measures, for the transition to a market economy is incredibly expensive. If the inhabitants in fertile age in the poor Baltic area countries really value raising their income, it would be difficult even with generous family policy measures to bring about a significant and permanent rise in fertility.

Even if the populations of these countries were to renew themselves for several decades at the level of the past few years, this might not destroy their positive economic prospects. Improvement in the material standard of living currently depends more on the education of the population and on increasing the country's knowledge reserves than on the size of the population. Even the poor Baltic countries are rich compared to the poor countries of the world, so that it would be easy for the Baltic area to attract unskilled labor from the developing countries when needed.

There has usually been a marked decrease in mortality when the real income per capita of a nation has increased. In half a century the life expectancy of a newborn in Finland has risen 15 years and even more in Japan, for example. What will happen in the poor neighboring countries, where occasionally, during the last few years, there has actually been a drop in life expectancy? When our poor neighboring countries get their economy into order, they are certain to return to the lengthening lifespan track that the other countries, which are getting richer, are in.

Someday, when the poor Baltic area countries are markedly more wealthy than they are now, they may genuinely decide what kind of a welfare society they want to build. Sweden, Denmark, and Finland increased their public expenditures while they were becoming more wealthy and built the so-called Nordic welfare state. It takes care of its members from cradle to grave by providing everyone with good public services and complete social security. It has thus been possible to significantly decrease inequality between citizens, but the price of the Nordic welfare society has been that the ratio of taxes to the gross national product has already risen to one-half.

Among the rich countries, the USA and Australia, for example, have built a different society, where the proportion of taxes to the national product has been kept at about 30 percent. In these countries all citizens are not provided with complete social security and quality public services using tax funds. This means that the citizens themselves must either provide the funds directly or use insurance they have paid for themselves for a major portion of their pension expenditures and other social security and for the health, education, and other welfare services they need.

## Summary

According to the purchasing power parity estimates, Denmark is the richest country bordering on the Baltic Sea. In 1995 real income per capita in Germany was a few percent smaller than in Denmark. The national economies of Sweden and Finland clearly generated less real income per capita than Germany. The other Baltic countries are truly poor. The richest of them is Poland, which produced only one-fourth of the real income per capita produced by Denmark. The poorest Baltic country, Latvia, was able to produce only one-sixth of the real income per capita of Denmark.

Among the nine Baltic countries the biggest economically is Germany, which produced clearly over one-half of the total real income of these countries. Russia's corresponding portion remained at just under one-fourth. The third largest country economically among the countries being compared is Poland, whose proportion of the real income of the Baltic countries reaches slightly over 7 percent. The smallest countries, Estonia, Latvia, and Lithuania, together produce only one-hundredth of the total income of the Baltic countries.

Economic development in Finland has been excellent in the long run. In one hundred years the real income per inhabitant has grown to ten times what it was, even though the population has doubled. If the poor Baltic countries are placed in the framework of Finland's economic history, then Poland produces the same amount of real income per capita as Finland did four decades ago. The current real income of Russia, Estonia, Lithuania, and Latvia was exceeded by Finland even earlier.

In the Baltic area, migration flows have been rather weak for several reasons, even though economic differences between the countries are great. Migration is deterred by the language and education differences between the countries and the flow of capital to the poor countries. In addition, technological development continuously decreases the demand for unskilled and poorly trained labor.

In the transitional countries in the Baltic area, the birth rate has dropped drastically to an exceptionally low level. It is also not at all certain that it would return to its previous level even under conditions of rapid economic growth, for the population in fertile age may permanently consider consumption preferable to having children. Even if the population of these countries were to renew itself for decades merely at the level of the last few years, it perhaps might not destroy the positive economic prospects in these countries, after all. The improvement of the material standard of living currently depends more on the education of the population and the increase in the country's knowledge reserves than on the size of the population.

The future of the poor Baltic area countries also depends strongly on the expansion of the European Union. It is possible that already in the decade to come some of these countries will be in the Union building a common Europe. Then their economic and demographic development would be strongly influenced by the decisions jointly agreed on in the Union. On the other hand, the development in these countries would then have an even greater impact on the current Union member countries, especially in the Baltic area.

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