

3.3. Education and health

Education

Education of the population plays a still more important role in the support of economic growth and living standard. Indicators characterising sources of education potential (number of graduates, education structure, expenses on education) but also connections between qualifications, incomes of graduates and economic output are used for the monitoring and analyses of the education processes.

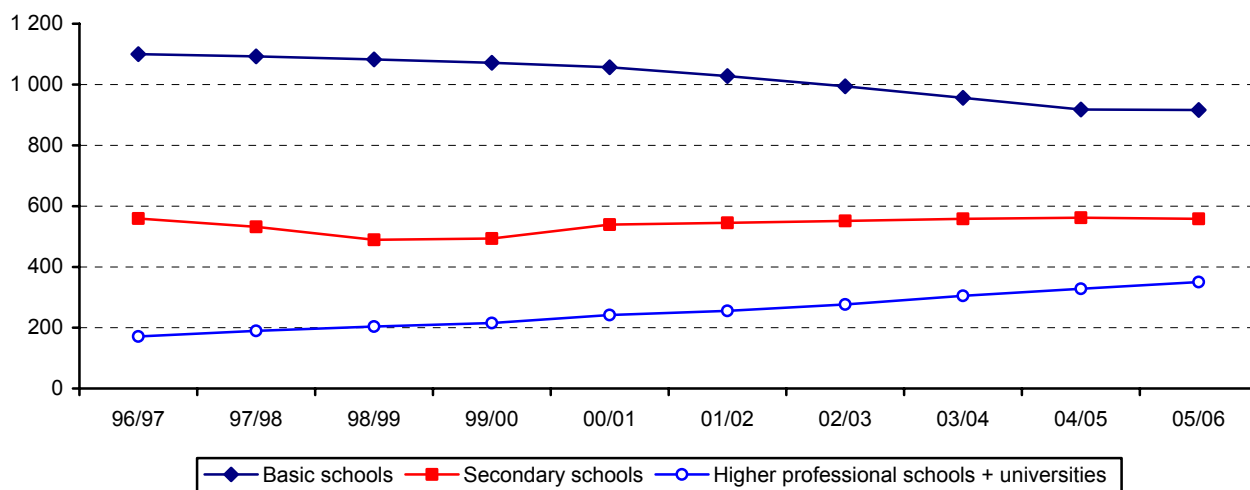
- **Interest in higher education increases**

During the school year 2005/2006, 282 183 children went to kindergartens, 916 575 pupils to primary schools, 558 498 pupils to secondary schools, 28 792 pupils to higher professional schools and 321 164 students to universities. Taking in to account the compulsory schooling, the number of children in the time series in primary schools is affected by the number of children in individual age groups. Most of the pupils continue in their education on secondary schools. Interest in studies on higher professional schools and universities has been growing in the last ten years.

- **Number of graduates of higher professional schools and universities has been increasing**

In 2004/2005 there were 127 736 graduates from secondary schools (excluding performing arts schools and schools with special educational needs). A marked decrease of secondary school graduates between 1997-1999 was caused by the change to a compulsory nine-year school attendance. In the same school year 7 989 pupils graduated from higher professional schools and 40 964 students successfully graduated from universities. Compared to 1997/1998 school year, the number of university students increased by 57.8%.

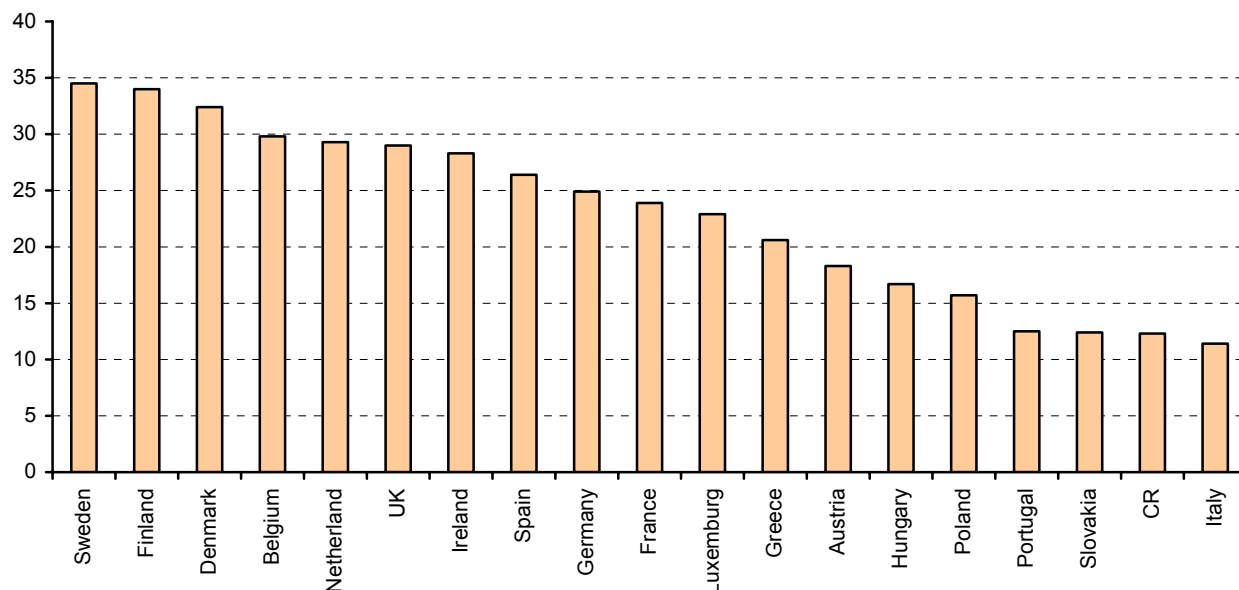
Graph 80 **Number of pupils and students (thousand)**



- **High number of secondary graduates, still low number of university graduates**

In the field of reached education, the CR within the international comparison ranks in individual categories differently. According to the share of population aged 20-24 with completed secondary education the CR, with 91.2% ranked second within the EU, right behind Slovakia. It follows that similarly successful is the CR with the share of population aged 18-24, which completed only basic education. In the CR it was 5.5% of the population and it represents a second place following Slovenia. In a relatively worse position is however the CR in the field of reached university education, as shown by Graph 81. In 2004 in the age group of 25-64 it was 12.3% of the population, which ranks the CR among the last places.

Graph 81 Share of population with university education in the 25-64 age group in selected EU countries in 2004 (%)

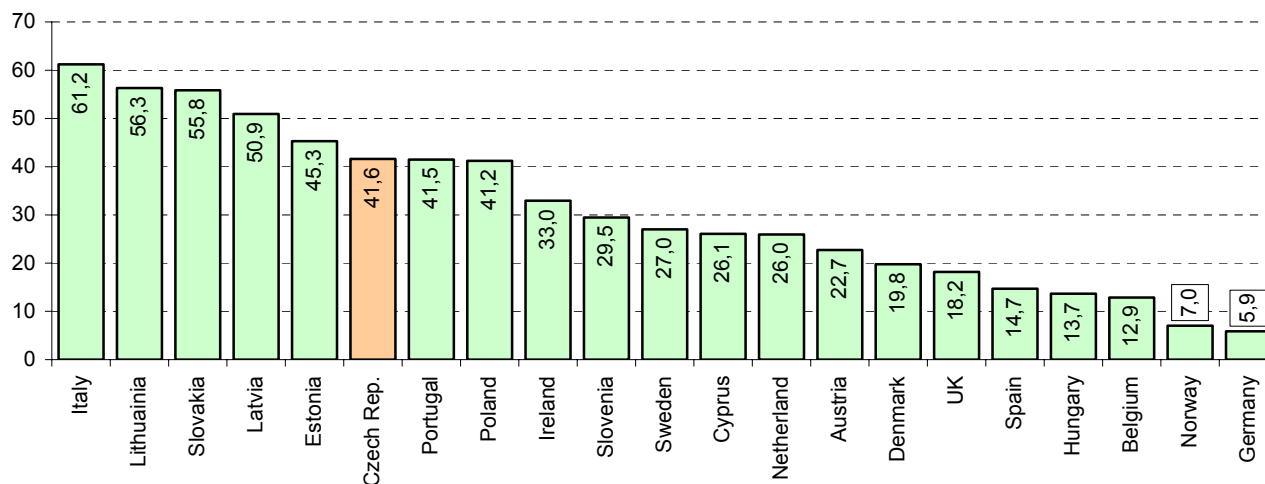


Source: Eurostat

- Growth of the number of university graduates**

The number of university graduates in the CR has been increasing rapidly. Between 2000 and 2004 the number increased by 41.6%, which ranks the CR among countries with the fastest growth of university graduates.

Graph 82 Number of university graduates in 2000-2004 (% growth)



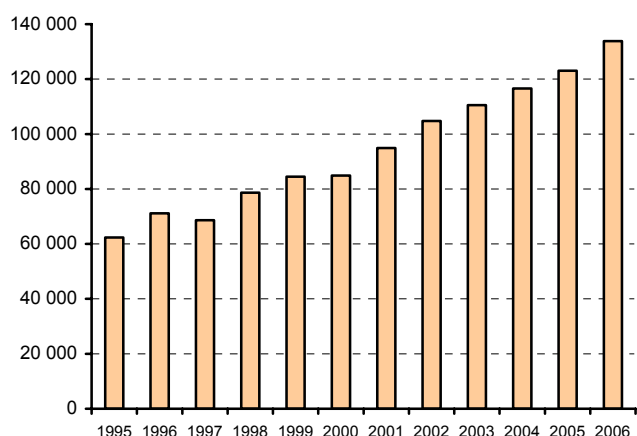
Source: Eurostat

- Low public expenses on education, share of private expenses increases.**

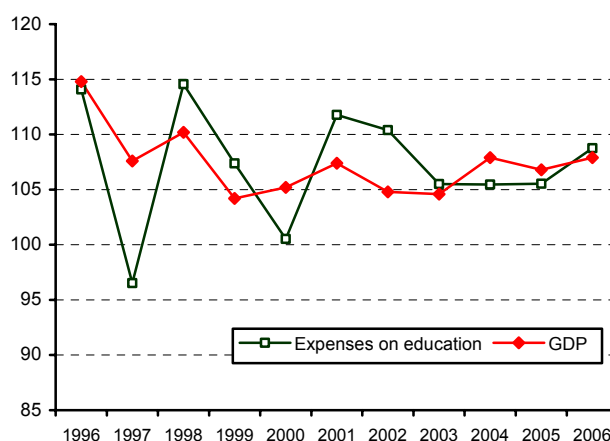
In 2006, expenses on education made up CZK 133.8 billion from the public budget. Expenses from the public budget on education grew more than two times since 1995. In 2003-2006 the tendency of convergence of growth of education expenses and economy growth started to gain ground.

Total expenses on all education levels move around 5% GDP in the CR. In 1995-2003 a drop of 0.4 p.p. was recorded; public expenses had a 0.5 p.p. share on the drop and on the other hand private expenses increased by 0.1 p.p. Within the international comparison the CR ranks among countries with low expenses on education.

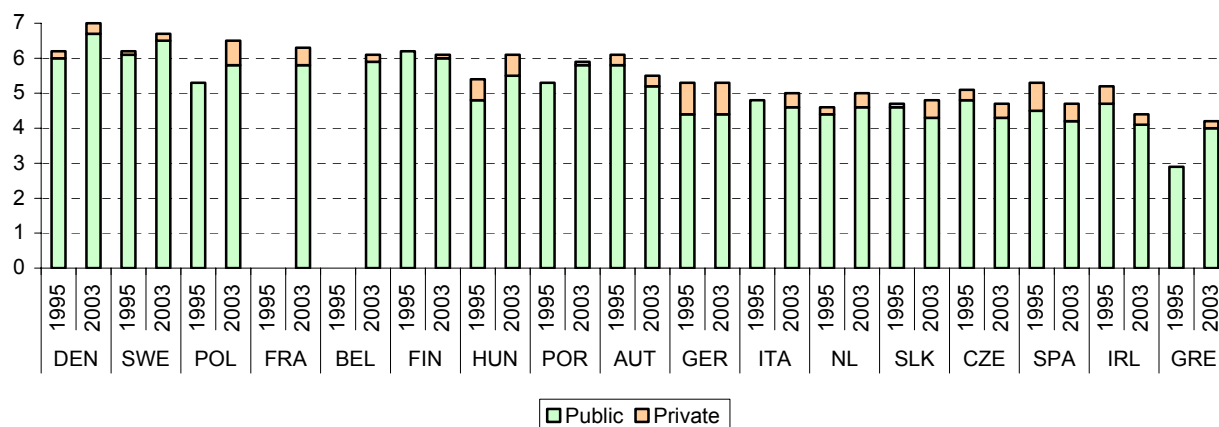
Graph 83 Expenses from the public budgets on education (million CZK)



Graph 84 Index of expenses from the public budgets on education and nominal GDP (%)



Graph 85 Public and private expenses on all education levels as a % GDP

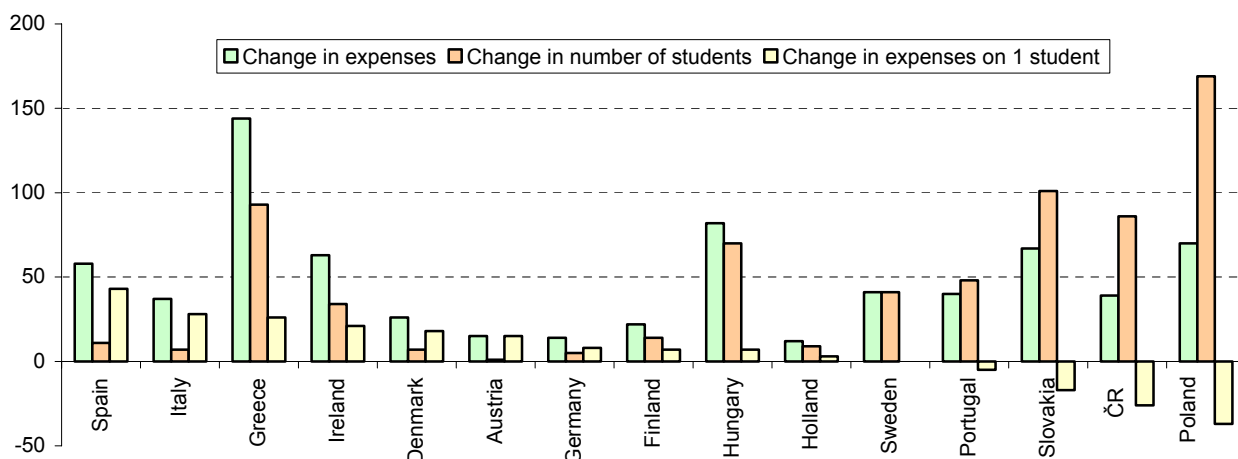


Source: OECD

- Number of university students grows faster than expenses on education**

Expenses on university education in the Czech Republic increased by 39% in 2003 compared to 1995, during the same period, however, the number of university students increased by 86%, so expenses on one student dropped by 26%. Within the international comparison a similar development was recorded also in Poland, Slovakia and Portugal. Sweden had increasing expenses on university education identical with the increasing number of university students. Growth of expenses on university education in other selected countries is faster than the growth of the number of university students.

Graph 86 Changes in expenses on university education (% change 1995-2003, 1995=100)

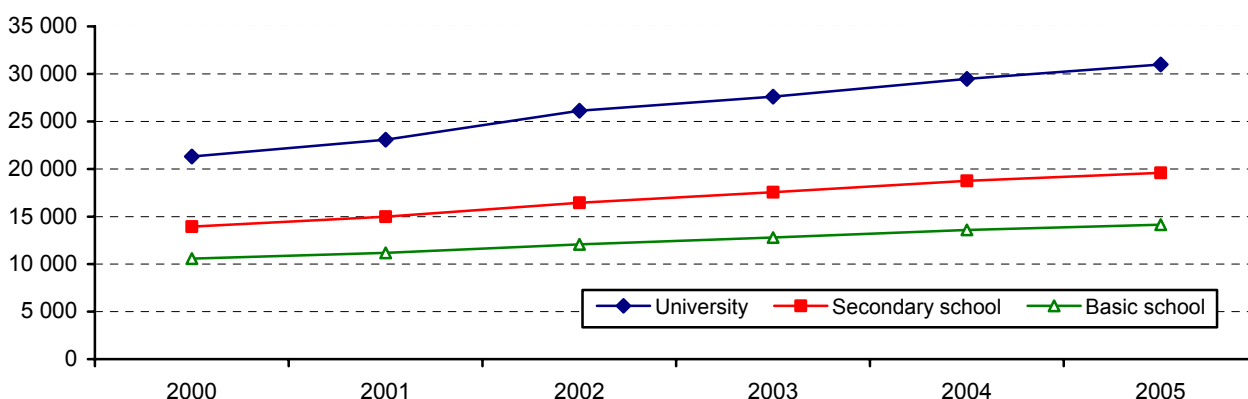


Source: OECD

• **Higher the education, higher the wage**

It generally applies that within the three groups of reached education i.e. university students⁸, secondary school students⁹ and persons with lower education than secondary¹⁰: the higher education, the higher wage. Above all it is also apparent from Graph 87 that average wages of university students are higher and increase faster than that of persons with lower education. Only time series for 2000-2005 is available.

Graph 87 Average monthly wage (CZK)



Health

Demographic development of the Czech Republic, which is dominated by the factor of ageing of the population, projects itself also in health care. Also the increasing life expectancy is connected with this – the parameter of life expectancy during the 90s increased quickly and following a relative stagnation in 2000-2003 a higher growth occurred again in 2006, when in one year life expectancy increased by more than a half a year to 73.4 years for males and 79.7 years for females. Higher share of elderly people in the population also means higher demands on health care, concerning both its material security and primarily financing.

Generally, the increasing life expectancy is a consequence of several factors of an individual character and in particular a big success of medicine and health care. It is therefore not possible to use a

⁸ Average calculated for employees with higher professional and bachelor's degree and for employees with a university degree.

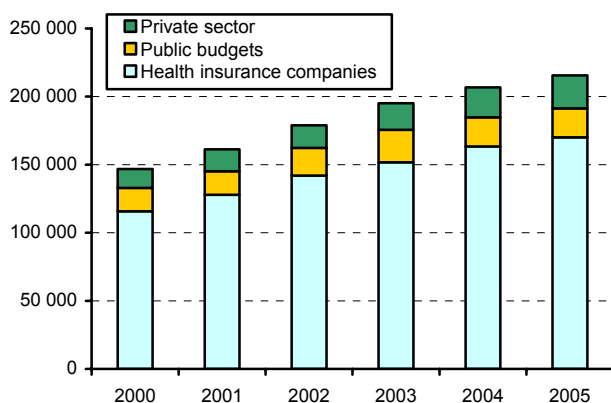
⁹ Average calculated for employees with secondary school without GCSE and for employees with secondary education with GCSE.

¹⁰ Employees with basic or unfinished education.

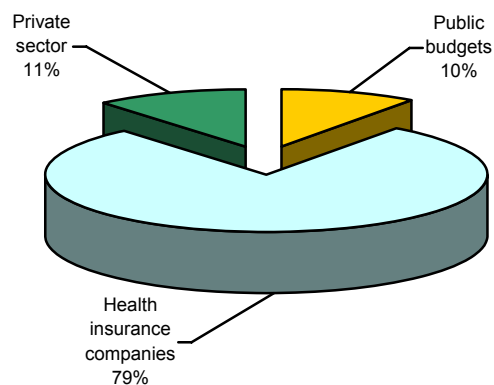
technocratic view to see only the negative aspects connected with ageing of the population and its projection in the demands on health care. Nevertheless, the need to finance this care begins to be the key problem of the Czech health care – if in 1998 expenses in the sector of health insurance companies made up CZK 105.8 billion then in 2006 this decisive source of financing, which covers approximately three fifths of total expenses on health care in the CR, provided in total of CZK 180 billion to the Czech health care.

- **Sources of health financing** In the Czech Republic, there are three main financial resources of health care: health insurance, public budgets and private sources. The system of health accounts according to international standards has been exercised in the CR since 2000, therefore only the time series 2000-2005 is available.

Graph 88 Expenses on health (million CZK)



Graph 89 Structure of expenses on health in 2005 (%)



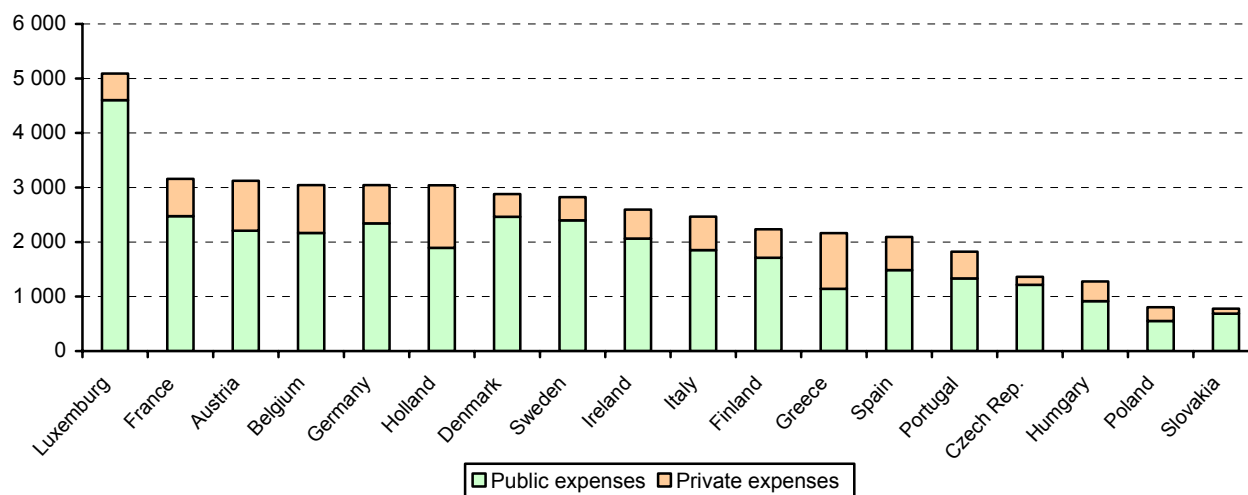
- **Low private expenses on healthcare**

Total expenses on health care within Europe are the lowest in eastern European post communist countries. In the Czech Republic and Slovakia, there is, above all, apparent a very low share of private expenses on health care, as shown by Graph 90, even though this share has been constantly increasing. Concerning the proportion of public and private expenses on health care, the biggest share of private instruments in health care financing in Europe has got the Netherlands and Austria, which belong among the first third among the European countries when absolute expenses per person are concerned (in USD in purchase power parity).

- **Health insurance companies finance almost 80% of the health care**

According to 2005 data, the private sector contributed to the total expenses on health care by 11.2%, which was approximately the same as overall expenses from the state budget and local government budget. The share of the private sector has been increasing; in 2000 it was 9.4% of the total expenses on health care. Health care in the Czech Republic is therefore decisively financed from the health insurance companies' resources, which in 2005 contributed to total expenses on health care by 79%.

Graph 90 Public and private expenses on health in 2004 (per person in USD in PPPs)



Source: OECD

- **Revenues and expenses of health insurance companies**

Revenues and expenses of the health insurance companies¹¹ for the period 1998-2006 increased by three quarters to CZK 182.8 billion and in the given period they had been rising by approximately 7.5% a year. In the first half of the analysed period the average annual increases were almost by 2 p.p. higher than during 2002-2006.

The comparison of revenues and expenses in the sector of health insurance companies shows the resulting balance, which in 1998-2006 ranged between CZK – 1.1 billion (1998) to CZK +2.5 billion (1999). In 2003-2006 the very slight surplus of revenues remains (in the range CZK 0.2 – 2.8 billion).

- **Drop of expenses on health care in relation to GDP**

The year-on-year growth rate of expenses on health care in the period since 2002 has been decreasing. In 2005 expenses on health care increased only by 4.3% while in 2002 the growth amounted to 10.9%. In the same period the growth rate of nominal GDP accelerated with peaks in 2004 and 2006 (+7.9%).

- **Rate of demographic dependence**

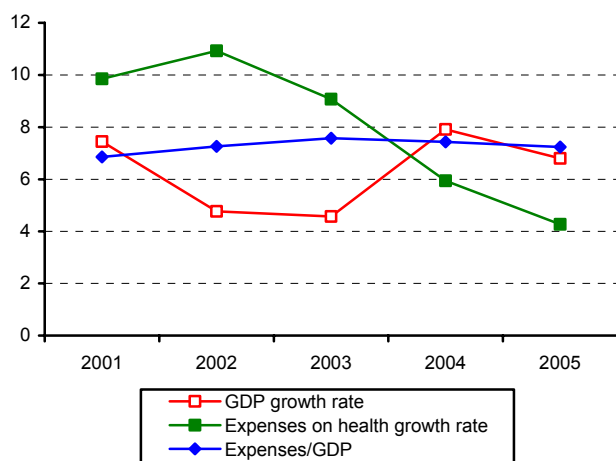
The share of persons in the senior age has been rapidly increasing; these people are dependent (in the sense of incomes from the current pension scheme or financing of health care costs) on inhabitants in the productive age. This means that the rate of demographic dependence made by the share of the number of these demographic groups (for the senior age there is a limit of 59 years) increased in a short time – if in 2000 the number of these seniors contributed to the number of persons in the productive age by 31.3%, in 2006 it is almost 34.9% and the expectation according to the demographic projection of the CZSO is for 2009 38.1%.

- **Life expectancy**

In 2006 the life expectancy of males increased by 0.8% year-on-year and of females by 0.7%. In the last ten years these year-on-year changes ranged from 0.0 to 0.9%. Within the EU, the CR belongs among countries, whose inhabitants live a rather shorter life. The CR belongs, however, to countries where in the recent years life expectancy at birth has been markedly increasing.

¹¹ When analysing the structure of expenses with prevalence of financing by the health insurance companies, it is necessary to take into account the fact that it is the money of the clients of these health insurance companies, who finance the care (not the state).

Graph 91 Total expenses on health and GDP
(year-on-year changes in %, share in %)



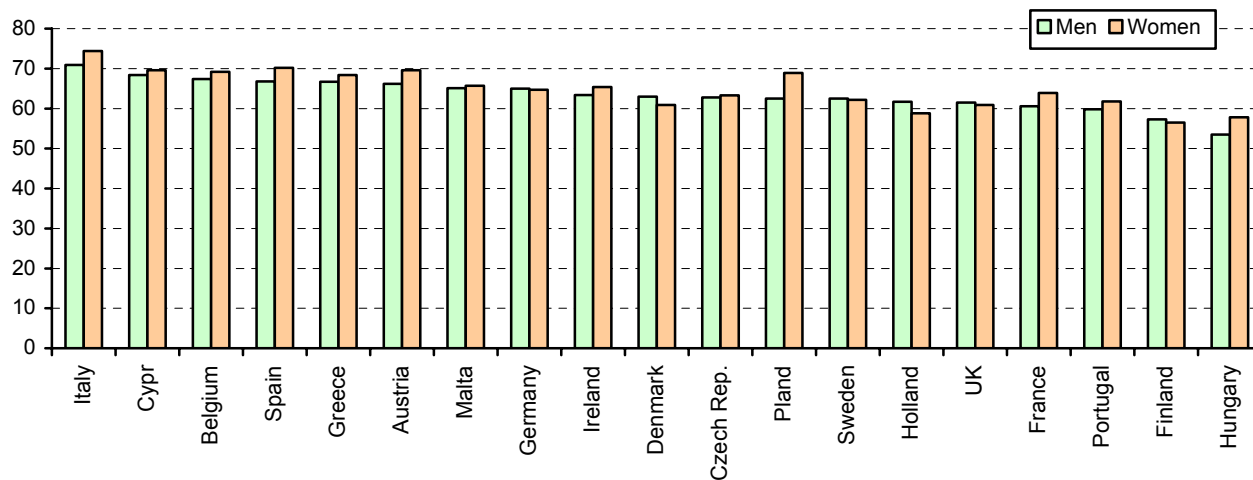
Graph 92 Total expenses on health and life expectancy
(%)



• **The CR is in the middle of the European scale in the age of living in a healthy condition**

Apart from the indicator of life expectancy determining the age, which can be lived by a just born individual, there is also an indicator, which predicts the age, which can be lived by a just born individual in a healthy condition¹². In the CR, this indicator was 62.8 years for males and 63.3 years for females in 2002. Both of these values rank the CR in the middle of the European scale. It shows that the level of age lived in a healthy condition is conditioned by geography (in Mediterranean countries it is higher than in Scandinavian countries). From the time series point of view since 1995 the growth of this indicator for males has been apparent, while for females the situation is the opposite.

Graph 93 Life expectancy in healthy condition (years, data for the CR 2002, other countries according to data availability for 2002-2003)



Source: Eurostat

¹² It concerns an indicator combining information on mortality and sick rate. A healthy condition is defined as life without serious diseases.