

Analysis of Labour Market Indicators in Slovakia

Kotulič Rastislav

Abstract

One of the prerequisites for the creation of employment opportunities is the overall conditions of a country's economy. However, this prerequisite is not the only requirement that guarantees an increase in employment. The factors that influence the rate of employment are connected with the entrepreneurial environment of a country. The entrepreneurial environment is one of the basic factors that contribute to the creation of work opportunities in a market economy. This paper points to the fact that, future growth of the employment rate will be connected to the quality of the workforce as well as the renewed economic-political concept with a priority on the knowledge economy based on learning competences.

Key words: employment, structure of employment.

1 INTRODUCTION

Slovakia belongs to countries with the labor force being one of the most important comparative advantages (Adamišín, 2008). Nowadays, Slovakia is facing a problem of a shortage of the labor force in certain subdivisions. This problem is common in other member states of the EU as well. The labor market lacks specialists in IT, builders and mechanics. It is important to solve this problem and to eliminate the disproportion between the supply and demand for work from the perspective of education, skills and work experience. Similar opinion is expressed by Bobáková and Hečková (2007).

2 MATERIAL AND METHODS

The main goal of this research article is to reveal remaining problems and resources of the labor market in the Slovak Republic. This is done with the use of the analysis of employment. This study analyzes employment in the Slovak Republic during years 2002 -2006. The reference data are derived from official statistical information of the Slovak Republic, professional literature and research articles. Several research methods were used during the writing of this article, namely comparison, analysis and synthesis. Furthermore, during the final discussion of results standard mathematical-statistical equations and calculations are used. The employment index is calculated according to three methodologies: employment according to the registration index of employees, employment according to the labor force sample survey (VZPS) and employment according to the methodology of the ESA95.

3 RESULTS AND DISCUSSION

During the period of 2002 – 2006 the employment is growing annually by 2.66% according to the VZPS (calculated by the index k – average annual growth rate). This is the highest average rate comparing it to the growth rate according to the administrative information and infor-



mation from ESA95. The overall employment decreased only in 2004 by 0.34% according to ESA95. According to the registration index of employees the employment is growing during the whole period. In 2004, the smallest increase in employment is reached. In absolute numbers, the employment, according to ESA95, is from 2 026 417 to 2 131 784 persons, according to VZPS from 2 127 000 to 2 301 400 persons, and according to the registration index of employees from 2 008 851 to 2 148 182 persons. In any case, the growth of employment during the period of 2002 – 2006 exceeded 100 000 persons and, according to the VZPS methodology, it reached 174 400 persons.

Tab. 1 – Employment in the SR (in persons). Source: Statistical Office of SR

	2002	2003	2004	2005	2006	k
Overall employment (ESA95)	2 026 417	2 062 693	2 055 711	2 083 971	2 131 784	-
I_R (%)	-	101,79	99,66	101,37	102,29	101,70
Employees (VZPS)	2 127 000	2 164 600	2 170 400	2 216 200	2 301 400	-
I_R (%)	-	101,77	100,27	102,11	103,84	102,66
Average registration index of employees	2 008 851	2 024 992	2 030 348	2 074 988	2 148 182	-
I_R (%)	-	100,80	100,26	102,20	103,53	102,26

In 2002, there are no prominent changes. The employment rate calculated according to persons of 15 – 64 years of age is in 2002 only 56.7%. During the period, it oscillated around 57%, and during the last year of the study research it reached the maximum of 59.4%. According to the index of the employment rate of persons older than 15 years of age, this includes employed old age pensioners older than 64, the employment rate naturally reaches lower numbers. The growth of the employment rate above 15 years of age almost copies the growth of the employment rate of the 15 – 64 years of age group.

Tab. 2 – Employment rate according to VZPS (in %). Source: Statistical Office of SR

	2002	2003	2004	2005	2006
Employment rate in the SR 15-64 years of age (VZPS)	56,7	57,6	56,9	57,7	59,4
Growth of the employment rate	-	0,9	-0,7	0,8	1,7
Employment rate in the SR 15+ years of age (VZPS)	48,7	49,6	49,1	49,8	51,2
Growth of the employment rate	-	0,9	-0,5	0,7	1,4

The overall employment rate for persons in the age between 15 – 64 in the given period is growing slowly throughout EU (15) as well, and reaches the level of 64.2 – 66 %.

The demographic development in the Slovak Republic is characterized by the aging of the

population and decrease in the annual growth of population. In the given period, the supply of the employment opportunities is growing; population in the productive age group rises by 472 400 persons, which is granted by the continuation of the wave, that is characterized by the inpouring of the economically active population to the labor market. This fact is visible in the growth of employment, however, a huge part might have been absorbed by the shadow economy, foreign work opportunities, or by the growth of unemployment (Kárász and Kárász, 2002).

The most visible impact of the demographic development is in 2004, when the growth of the population in the productive age rises by 12% and it exceeds the stagnating growth by 0.27% of the number of employed persons. That is the reason for the decrease in the unemployment rate by 0.7 % to 18.1%, in 2004 only. This is compensated by a positive influence in the following years. In 2005, the employment rate reaches the level from before 2004, and in 2006 it further grows to 59.4% thanks to the 3.84% of the labor force. During the rest of the years (except for 2004) the employment rate is continually growing compared to the growth of the productive age population. This is the reason why there is no increase of the unemployment due to the no inclusion of the growth of the population in the productive age group to the labor force.

During 2002 to 2006 the cumulative growth of the overall employment is almost 8.20%. The employment is growing in absolute numbers as well as in comparison to the population in the productive age. It is possible to state that even in 2006 apart from positive trends, there is a strong imbalance on the labor market. The supply of the work opportunities exceeds the demand.

Tab. 3 – Growth of employment and the increase in population in the productive age (in thousands). Source: Statistical Office of SR

according to VZPS	2002	2003	2004	2005	2006
Population in the productive age	3 389,80	3 389,80	3 801,60	3 827,70	3 862,20
Increase of population in the productive age in %	-	0	12,15	0,69	0,90
Employed	2 127,00	2 164,60	2 170,40	2 216,20	2 301,40
Increase of the number of employed people in %	-	1,77	0,27	2,11	3,84

In 2002, the shares of employed, unemployed and economically inactive in the age group of 15 – 64 are approximately 49%, 11%, 40%. Till 2006, these shares changed to approximately 51%, 8%, 41%. This means that the share of the employed in the age group of 15 – 64 increased by 2.32 %, meanwhile, the share of economically inactive persons increased by 1 percentage point. The share of the unemployed decreased by almost one third.

According to this calculation, it is possible to state that the increase of employment means the decrease of unemployment, accompanied by a slight increase of the population in the unproductive age group (Lubyová, 2000).

Tab. 4 – Share of segments of population in the age group of 15 – 64. Source: Statistical Office of SR

according to VZPS	2002	2003	2004	2005	2006	06 - 02
Employed in %	48,88	49,7	49,19	49,82	51,2	2,32
Unemployed in %	11,19	10,54	10,89	9,61	7,86	-3,33
Inactive population in %	39,94	39,76	39,92	40,57	40,94	1

As there exists the trend of the ageing of the society, it is important to monitor the impact of this trend on the structure of employment according to different age groups. The labor force is divided into 4 age groups 15 – 24, 25 – 49, 50 – 64 and 65 and older. The percentage shares of these groups in 2002 are as follows 12 : 72 : 17 : 0. This shows that the biggest share of the labor force is formed by the age group of 25 – 49 years of age, followed by the age group 50 – 64 years of age. The lowest level of employment is the age group of 65 and older, which is natural as this group is mainly formed by working old age pensioners.

During 2002 – 2005 the old age pensioners become more active in the labor force. The share of this group increased in the overall employment. The only exemption is the year 2006, when the number of labor force decreased in absolute and comparative numbers. The share of this group in the overall employment is approximately 0.3%.

During the whole research period the share of the employment of the youngest age group of 15 – 24 is decreasing. This trend is visible in the absolute numbers with the decrease of number of employees by 25 700 persons. The employment rate in this group is lower than the overall employment rate. One of the possible reasons is that this age group is preparing for their future job (study), women are taking part in the reproduction process and another main reason is the unemployment. In comparison with the EU, the decrease in employment in this age group is more vigorous in the SR.

The highest participation in the labor market is in the age group of 25 – 49 years of age. The share of this group on the overall employment rate is decreasing during the whole research period. The overall result is the decrease by 2.7% regardless to the increase in the absolute numbers by 62.9 thousands of persons. This group can be excluded from the labor market because of unemployment, maternity and paternity leaves, illnesses and disabilities.

The next group of the labor force is the age group of 50 – 64 years of age. The oldest working old age pensioners (without the paid pension) create a more numerous group than the youngest age group of 15 – 24 years of age. Their share on the labor force increased from 16.8% to 21.14%. It is probable, that with ever increasing age limit for the pension, the employment of the labor force of the age group 50 – 64 will increase as well. Different age limit for pension for men and women in Slovakia is the reason for the difference in their share of the labor force. The number of the youngest employees decreases and the number of the employees of the age group of 50 – 64 increases. This tendency is similar in the majority of the European countries, and this trend only shows the ageing of the labor force in the Slovak Republic. This trend is connected to other issues dealing with the older employees (e.g. contentment with the work conditions, interest in the early retirement, prioritization of a certain work routine) that are needed to be taken care of, because they are constantly changing with the age (Kotulič, 2008).

Tab. 5 – Trend of the number of employees according to age groups (in thousands of persons).
Source: Statistical Office of SR

according to VZPS	2002	2003	2004	2005	2006	IB 06/02 (%)
All age groups	2 127,00	2 164,60	2 170,40	2 216,20	2 301,40	108,20
15 – 24 years of age	245,9	250	234,8	224,1	220,2	89,55
25 – 49 years of age	1 524,60	1 546,80	1 524,70	1 536,10	1 587,50	104,13
50 – 64 years of age	356,4	367,8	403,2	447,8	486,5	136,50
65 and older	5,2	7,2	7,7	8,2	7,2	138,46

The following table (table 6) shows an important relationship between the trend in employment and the development of the GDP. The relationship between the development of the economy and the increase of employment is expressed through elasticity of the change of employment according to the change of the GDP. A positive value of this figure shows, that both of examined indicators – economic development and employment – are changing in the same course during the research period (direct proportion), the negative value would indicate the contrary (inverse proportion). The more the absolute number of this index is closer to number 1, the more immediate relationship between the growth of the GDP and employment.

The immediate relationship between the growth of the GDP and employment is visible from the development during the research period. This statement is supported by the fact that the elasticity is nearing the number 1. During the research period, the GDP increased by approximately 8.43% and the growth of employment was by approximately 2.66%. both of the indexes are increasing during the period, however, for the 3% growth of employment a 9% increase of the GDP was required. This indicates that the growth of employment can be expected only during a high rate of the economic development.

During the period of 2002 – 2006, Slovakia is characterized by a relatively high rate of the economic growth according to the increase of the GDP, however, this trend is not completely palpable in the dynamics of employment, mostly by the job creation (the GDP growth is more than three times higher than the growth of employment).

Tab. 6 – Relationship between employment and GDP in the Slovak Republic. Source: Statistical Office of SR

	2002	2003	2004	2005	2006	k
Employment in the SR in thousands of persons *	2 127,00	2 164,60	2170,4	2 216,20	2 301,40	-
GDP in billion Skk**	1 016 007	1 064 422	1 119 863	1 193 381	1 295 253	-
IR v % - employment	-	101,77	100,27	102,11	103,84	102,6
IR v % - GDP	-	104,77	105,21	106,56	108,54	108,4
Δ Employment in % / Δ GDP in %	-	0,97	0,95	0,96	0,96	-
Δ GDP in % - Δ employment in %	-	3,00	4,94	4,45	4,69	-

Legend: * according to VZPS, ** GDP in stable prices in 2000 calculated by the method of content chaining of ESNÚ 95 according to quarterly national accounts

The main part of the people employed in the Slovak economy is working in the private sector. The share of the private sector on the overall employment in 2002 was approximately 54%, which stands for more than one million employees. In 2006, this share exceeded 65% and reached number above 1.3 million employees. This indicates that the growth of employment is influenced by the private sector. The share of the public sector on the overall employment dropped from 46% to nearly 35%.

The decrease of employees in the public sector is visible not only in the relative but also in the absolute number. Employment in the public sector decreased by more than 195 thousands of persons during the research period. This decrease is constant during the whole research period, thus it is possible to state that the number of employees in the public sector is decreasing gradually.

The growth of employment in the private sector is constant during the whole research period, contrary to the growth of the overall employment. The overall number of employees in the Slovak economy decreased (in 2004) and reached its level from 2003 in 2006. This decrease is influenced by the decrease of employment in the public sector, this decrease was possible to neutralize by the increase of employment in the private sector by 2006.

Tab. 7 – Employment in the public and private sector (in thousands persons). Source: Statistical Office of SR

according to VZPS	2002	2003	2004	2005	2006	IB 06/02 (%)
Men and women						
All employees	1 940,90	1 947,60	1904,2	1 929,10	2 002,60	103,18
Employees in the public sector	893,7	850,2	797,5	754,4	698,3	78,14
Employees in the private sector	1 047,30	1 097,50	1106,7	1 174,70	1 304,40	124,55
Men						
All employees	1 019,10	1 023,20	1000,9	1 020,50	1 073,50	105,34
Employees in the public sector	424,9	401,6	368	340,5	308,2	72,53
Employees in the private sector	594,3	621,6	632,9	680	765,4	128,79
Women						
All employees	921,8	924,5	903,3	908,6	929,2	100,80
Employees in the public sector	468,8	448,6	429,6	413,9	390,1	83,21
Employees in the private sector	453	475,8	473,7	494,7	539	118,98

According to the gender structure, most of the women were employed in the public sector in 2002. The share of women employed in the public sector dropped from 51% to nearly 42%, which in absolute numbers represents nearly 79 thousands of employees. Number of women employed in the private sector exceeded the number of women employed in the public sector in year 2003. Most of men were employed in the private sector during the whole research period, their number is decreasing in the public sector and is increasing in the private sector. The share of public sector employment of men dropped from 41.7% to 28.7%, which constituted decrease by more than 13%. The private sector, according to expectations, is gradually increasing at a higher rate than the public sector concerning the growth of employment and amount of production. The public sector indicates the decrease of the number of employees.

The decrease of the share of the primary sector is visible on the growth of the share of the tertiary sector. The share of the secondary sector is of the approximately same amount, in 2006 it increased by 0.38%. The primary sector decreased not only in the share of employment but also in the overall number of employees during the whole research period. The most eminent decrease is reached by 15.5% in 2004.

Tab. 8 – Structure of employment according to chosen OKEČ (in thousands). Source: Statistical Office of SR

according to VZPS	2002	2003	2004	2005	2006
All employees (from)	2 127,00	2 164,60	2170,4	2 216,20	2 301,40
Agriculture, fishing (A+B)	131,4	125,3	109,8	105,1	100,8
growth of employment A+B	-	-6,10	-15,50	-4,70	-4,30
% share of A+B of overall employees	6,18	5,79	5,06	4,74	4,38
Industry, building industry (C to F)	816,9	829	846,5	858,9	892,6
growth of employment C to F	-	12,1	17,5	12,4	33,7
% share of C to F of overall employees	38,41	38,30	39,00	38,76	38,79
Services (G to Q)	1 178,60	1 208,30	1 210,00	1 248,40	1 306,10
growth of employment G to Q	-	29,70	1,70	38,40	57,70
% share of G to Q of overall employees	55,41	55,82	55,75	56,33	56,75
Unknown	0,2	1,9	4,1	3,8	1,9

In the tertiary sector, the employment grew by more than 127 thousands of employees, which is a higher growth compared to the secondary sector. Most of the employees are employed in the services. In 2006, out of 100 employees 57 are employed in the tertiary sector, 39 in secondary sector and 4 in the primary sector.

4 CONCLUSION

Employment in the Slovak Republic is in the period of 2002 – 2006 growing. According to the average European employment rate it is possible to classify the Slovak Republic between the developing countries. Period after 2002 is characterized by the growth of population in the productive age group. Palpable is the trend of the ageing of the population as well. According to the gender division, there is a trend of the gradual extrusion of men and women without qualification, as well as insufficient qualification from the labor market. According to subdivisions of the economic activities (OKEČ) it is possible to follow a trend of strengthening of the tertiary sector and on the other hand the weakening of the primary sector according to employment.

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List of Abbreviations:

ESA95	European System of Accounts 1995
EU(15)	European Union – first 15 member states
GDP	Gross Domestic Product
IB	Basilar Index
IR	Chain Index
k	Average Annual Growth Rate in %
OKEČ	Classification of the Subdivisions of the Economic Activities
SR	The Slovak Republic
VEGA	Scientific Grant Agency of the Ministry of Education of the Slovak Republic and of Slovak Academy of Sciences
VZPS	Labor Force Sample Survey

Contact information

Doc. Rastislav Kotulič, PhD.

University of Prešov in Prešov, Faculty of Management

ul. 17. novembra č.1, 080 01 Prešov

Tel: +421 51 757 0807

E-mail: rkotulic@unipo.sk

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