



# **POPULATION DEVELOPMENT IN THE SLOVAK REPUBLIC**

**1999**

**Institute of Informatics and Statistics  
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This analytical publication evaluates the population development in the Slovak Republic for the recent time period focusing on 1999. The evaluation of all aspects of the reproduction process, including the international comparison, is to be found in the publication.

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## Introduction

Currently in our country, we observe significant changes in the demographic development which reflect the actual socio-economic situation and which can be indicated as a transition to the new model of the reproduction behaviour of the population. A significant decrease in nuptiality and fertility, an unfavourable development in divorces, despite certain improvement an unsatisfactorily level of mortality, changes in the development of abortion and migration cause other unevenness in the age structure of population, ageing of population, an increasing economic burden of population, changes in the structure of families and households, increasing of the average age at marriage and the average age of parents at the time of the childbirth. The natural increase of population is diminishing. The issue whether the long-term trends are in question or whether the break point in the current demographic development is to be expected after the end of the transformation period is to be considered as a very important one.

Due to the fact that those are events, which have the impact on several aspects of the social development, it is necessary to draw a higher attention to the study of demographic processes. The qualified decision-making in the field of economics, social affairs, employment, education, health, dwelling construction cannot be done without qualified, appropriately structured, variant and standby demographic information. On the other hand, all mentioned decisions and measures have a feedback on the population development, i.e. on the population and family structure, the development of mortality, natality, nuptiality, divorce, abortion and migration. These impacts have to be identified and quantified in time so they can be taken into account when adopting the necessary measures.

This publication would like to contribute to these objectives. It is a complex analytical publication in the field of demography, which should be the basis for the annual detailed evaluation of the demographic situation in the Slovak Republic. The inspiration for the elaboration of this publication was mainly the publication being released for several years by colleagues from the Department of Demography and Geodemography, Faculty of Natural Science, Charles University Prague.

Because this is the first publication of this type released in Slovakia after a long time, which, on the one hand, compensates the absence of such works in the past and, on the other hand, it creates a basis and a starting point for the future years, it is reflected partially in its contents and focus. The view backwards into the past is deeper as it has been preliminary expected. A significant part of this publication is formed by facts and figures – time series of all basic and many analytical demographic characteristics, the core of this work is in basic analyses. We assume that in the future the observed time horizon will be shorter whereas the analytical

standpoints on particular demographic processes should be deeper, more specific and less traditional.

The publication is intended mainly for those who are dealing with the population problems in different spheres of the social life – from ministries through the central and local government up to science, research and universities. It is, however, intended also for those who would like to be only informed about the current demographic development in Slovakia and are not dealing specifically with demography.

The publication is released as the second publication of the Demographic Research Centre within the Info-stat's edition. In addition to the Demographic Research Centre team, also the experts from other workplaces – from the Statistical Office of the Slovak Republic, the Faculty of Natural Science of the Comenius University and the Faculty of Mathematics and Physics of the Comenius University contributed to the creation of this publication. There were two reasons for creating such a mixed collective of authors. The main reason was the fact that the recent capacity of Demographic Research Centre did not allow to cover the whole observed area at the sufficient level. In addition, we are aware of the fact that the collective of authors exceeding the scope of one workplace allows obtaining a broader view on these problems and therefore we do not preclude the possibility of such an approach also in the future.

The complexity of this analytical publication lies, on the one hand, in the description of all aspects of the reproduction process and, on the other hand, in the detail of the description of particular demographic events. One chapter is devoted to each demographic process. At the beginning of each chapter, there is a brief characteristic of the relevant demographic process during 1950 – 1989, following by a detailed evaluation of the development during nineties. The conclusion of each chapter contains the description of regional differences in the development of particular process at the regional level.

The individual parts of the publication have been worked out and written by the following authors: the part on the population age structure by *Jana Chovanová* – *Marenčáková* from the Department of Human Geography and Demogeography, Faculty of Natural Science of the Comenius University, chapters on nuptiality and divorce by *Karol Pastor* from the Department of Probability and Statistics, Faculty of Mathematics and Physics of the Comenius University, chapters on fertility and abortion by *Boris Vaňo* from the Demographic Research Centre, chapter on mortality by *Ján Mészáros* from the Demographic Research Centre, chapters on migration and also increase and the number of population by *Daniša Jurčová* from the Demographic Research Centre. In addition to the analysis of individual demographic processes, the publication contains also the international comparison common for all demographic processes, which has been elabo-

rated by Michal Tirpák from the Division of Demographic Statistics of the Statistical Office of the SR. In the appendix (made by Milan Žirko from the Division of Demographic Statistics of the Statistical Office of the SR), there are data on the movement of population for the SR from 1950 until 1999 (absolute and relative indicators). Milan Žirko has contributed also to the preparation of data for all chapters.

From the standpoint of time, all data presented in the publication cover the time period from 1993 up to 1999, thus, the period from the inception of the Slovak Republic until nowadays.

For comparison, tables contain also data for 1990 (the beginning of the transformation period) and for 1985 (the time period when the old model of the reproduction behaviour culminated). In the chapter devoted to the international comparison are data for 1990 and 1998. Thus, it is possible to compare the situation in the selected countries in the time period when the transformation period in the SR started with the newest data, which are available from abroad.

All data for the Slovak Republic being used within the preparation of this publication and which are presented in particular tables come from the data sources of

the Statistical Office of the SR. In the chapter on migration, also the data from the Ministry of the Interior of the SR were used. Data on other countries, which are presented in the chapter "International comparison", are taken over from the data sources of Eurostat and the European Council.

At this time, it is necessary to highlight a very good co-operation between the collective of authors and the Statistical Office of the SR, the result of which are data and characteristics being not released until now in our country. The fact that within a very short time the data for 1999 were included into the publication at full extent and thus the publication contains information really up to the most recent time period is also very significant.

Publication has been released in a limited edition in the Slovak and English versions. The publication is unmarketable and will be distributed among the representatives of the top government bodies, public administration, research institutes, universities and media in order to ensure the information for the professional and non-professional public at the sufficient level. Furthermore, both versions will be at full extent available on the web site of the Demographic Research Centre ([www.infostat.sk/vdc](http://www.infostat.sk/vdc)).

## 1. Age structure of population

Table 1.1: Basic characteristics of the age structure of population (on 31 December)

	1970	1980	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total											
Population	4 539 890	4 996 329	5 295 877	5 314 155	5 336 455	5 356 207	5 367 790	5 378 932	5 387 650	5 393 382	5 398 657
Age group 0-14	1 239 782	1 303 715	1 301 474	1 278 904	1 256 032	1 225 988	1 195 288	1 164 897	1 133 678	1 101 841	1 069 374
Age group 15-59	2 668 703	3 023 379	3 205 692	3 237 802	3 277 286	3 321 122	3 358 767	3 396 450	3 432 610	3 466 436	3 498 392
Age group 60+	631 405	669 235	788 711	797 449	803 137	809 097	813 735	817 585	821 362	825 105	830 891
Age group 80+	49 421	77 223	105 746	109 199	112 216	115 806	112 765	107 059	100 478	95 209	99 728
Age group 0-14 (%)	27.3	26.1	24.6	24.1	23.5	22.9	22.3	21.7	21.0	20.4	19.8
Age group 15-59 (%)	58.8	60.5	60.5	60.9	61.4	62.0	62.6	63.1	63.7	64.3	64.8
Age group 60+ (%)	13.9	13.4	14.9	15.0	15.1	15.1	15.2	15.2	15.2	15.3	15.4
Age group 80+ (%)	1.1	1.5	2.0	2.1	2.1	2.2	2.1	2.0	1.9	1.8	1.9
Average age	32.0	32.6	33.7	33.9	34.0	34.3	34.5	34.8	35.1	35.4	35.7
Ageing index	33.6	39.7	42.4	43.8	45.3	47.2	49.1	51.2	53.4	55.4	57.5
Males											
Population	2 240 386	2 455 591	2 583 230	2 590 230	2 600 047	2 608 901	2 613 712	2 618 434	2 622 005	2 623 692	2 625 126
Age group 0-14	634 561	665 750	664 672	652 985	641 797	626 676	610 853	595 837	579 568	563 558	546 980
Age group 15-59	1 324 922	1 502 636	1 595 139	1 611 739	1 632 053	1 654 683	1 674 682	1 694 468	1 713 251	1 731 671	1 748 560
Age group 60+	280 903	287 205	323 419	325 506	326 197	327 542	328 177	328 129	329 186	328 463	329 586
Age group 80+	18 201	26 926	35 188	36 193	37 102	38 331	37 170	35 015	33 245	30 802	32 428
Age group 0-14 (%)	28.3	27.1	25.7	25.2	24.7	24.0	23.4	22.8	22.1	21.5	20.8
Age group 15-59 (%)	59.1	61.2	61.7	62.2	62.8	63.4	64.1	64.7	65.3	66.0	66.6
Age group 60+ (%)	12.5	11.7	12.5	12.6	12.5	12.6	12.6	12.5	12.6	12.5	12.6
Age group 80+ (%)	0.8	1.1	1.4	1.4	1.4	1.5	1.4	1.3	1.3	1.2	1.2
Average age	31.1	31.4	32.2	32.4	32.5	32.8	33.0	33.3	33.6	33.8	34.1
Ageing index	28.1	32.6	32.8	33.7	34.6	35.9	37.3	38.7	40.4	41.5	43.0
Females											
Population	2 299 504	2 540 738	2 712 647	2 723 925	2 736 408	2 747 306	2 754 078	2 760 498	2 765 645	2 769 690	2 773 531
Age group 0-14	605 221	637 965	636 802	625 919	614 235	599 312	584 435	569 060	554 110	538 283	522 394
Age group 15-59	1 343 781	1 520 743	1 610 553	1 626 063	1 645 233	1 666 439	1 684 085	1 701 982	1 719 359	1 734 765	1 749 832
Age group 60+	350 502	382 030	465 292	471 943	476 940	481 555	485 558	489 456	492 176	496 642	501 305
Age group 80+	31 220	50 297	70 558	73 006	75 114	77 475	75 595	72 044	67 233	64 407	67 300
Age group 0-14 (%)	26.3	25.1	23.5	23.0	22.4	21.8	21.2	20.6	20.0	19.4	18.8
Age group 15-59 (%)	58.4	59.9	59.4	59.7	60.1	60.7	61.1	61.7	62.2	62.6	63.1
Age group 60+ (%)	15.2	15.0	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	18.1
Age group 80+ (%)	1.4	2.0	2.6	2.7	2.7	2.8	2.7	2.6	2.4	2.3	2.4
Average age	33.0	33.7	35.1	35.3	35.5	35.7	36.0	36.3	36.5	36.9	37.2
Ageing index	39.3	47.2	52.4	54.3	56.4	58.9	61.5	64.3	67.0	69.9	72.8

The structure of population by age and sex is considered as a basic characteristic when studying demographic processes because most of them appear in population differently by sex and age. The current regional structures of population are directly linked to their development in the past. The contemporary age structure is a result of population processes from last hundred years a will directly influence the tendency of these processes for hundred forthcoming years. After a relative stabilisation of the mortality level in Slovakia, the age structure is being formed mainly by the influence of a differentia-

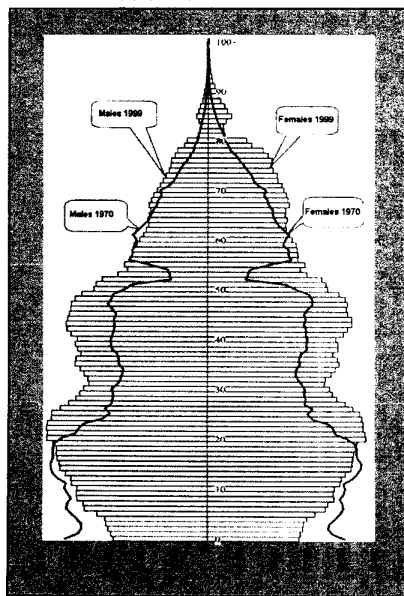
ted natality. The knowledge of the historical development of age structure of population is a necessary condition for the identification and explanation of population events and processes of nowadays as well as for the elaboration of their forecasts.

The most frequently used way of the interpretation of the age structure by sex and age is a graphical presentation, so-called age pyramid, which roughly presents the demographic history of population. The irregularities in the number of persons in the particular age categories reflect the facts, which have influenced the level

of reproduction (mainly the natality). This was the way by which the natality waves were created because the deformation in the age structure of population being once created would, as a rule, cyclically repeat in the future generation, usually, at lower extent. Due to the prolonging length of human life, the impact of older deformations is more long-term and significant than elsewhere in the past. Therefore, at the end of the twentieth century it is still necessary to take into account the consequences of natality depressions or waves from the first third of century, which influence the number of persons in some older age groups of population.

By comparing the age pyramids for 1970 and 1999, the significant differences in age structure of population can be observed which generally confirm the process of population ageing. There is a deep decrease in the numbers of the youngest age categories (under 20 years). On the other hand, all other age categories recorded an increase in numbers for the last 30 years. The most important is reflected in the reproductive age categories, the second sharp increase is in the categories of the post-productive age, especially in case of women (Graph 1.1).

Graph 1.1: Structure of population by age and sex in 1970 and 1999



The deformations of the age structure of population in Slovakia in 1970 appeared, despite the less extent and the shift being approximately 30 years, also in the age pyramid in 1999. In both years, but more significantly

in 1999, it can be seen that on the top of the age pyramid the population is more represented by women, which is the result of the different mortality level of men and women. Women reach older age as compared to male part of population in all advanced populations and, as the age is growing. Their share in population is increasing.

Until nowadays, the consequences of the World War I is observable whereas the lower number of people born in this time period is reflected also in the lower number of people living now. The influence of weak population age groups from the War period was in 1970 significant; it was reflected in the low number of people aged 52-55. Currently, these war age groups do not influence so sharply the age structure of population, however, a small cut is to be found at people aged 81-84.

The absence of generations from the period of the economic crisis in thirties explicitly appeared in the earlier time period in the age structure of Slovak population, partially it can be observed also in the graphic presentation in 1970 (age from 32 to 37). Nowadays this impact is less significant (age from 61 to 66).

Immediately after the World War II with regard to the improvement of socio-economic conditions we can identify a compensation period in the population development of Slovakia being characterised by positive features of the population reproduction (increase of natality, fertility, nuptiality, higher natural increase) and lasting until the half of fifties. The mentioned increase of natality is to be seen on the graph of age structure of population even in 1999 where the numerous age groups from the first half of fifties influence the proportion of people aged 43-49, i.e. people in the working age. After several years these numerous age groups will reach the age of retirement.

In the current age structure, a significant increase in the number of people at the age of the highest fertility is visible, i.e. the people born in seventies. The mentioned fact is caused by the cumulating of two factors: by the shift of powerful population age groups born in the compensation time period after the World War II towards the age of maximum fertility in seventies and by the increase in fertility as a consequence of its preceding low level and adoption of several pro-natality measures in seventies. Before 1989 it was expected that the natality wave from seventies would appear after 20-25 years in the increase of the number of live births, however, due to the change in socio-economic conditions in Slovakia and a consequent change in the demographic behaviour it did not happen.

With regard to the decrease in natality from eighties, the basis of the age pyramid started to be narrower, the most significant decrease of the natality level was in nineties, which was clearly reflected, in the sharp decrease of the number of persons in the youngest age categories. The shape of the age pyramid of the Slovak population witnesses the regressive type of age structure in which the children component of population is relatively less numerous and the population has an insufficient reproduction.

### Main age groups

The relations between the main age groups were in seventies and eighties relatively stable. The share of children aged under 15 exceeded the quarter of population while the number of people aged 60 and over was less than 14%. The shares of main age groups, as a consequence of long-term changes in the natality and mortality levels, began to change more significantly only with regard to the changes in the demographic behaviour in nineties. In 1999, the share of children aged under 15 decreased below 20% and the share of people aged 60 and more approached 16%. The proportion of people aged 15-59 in the population has slightly increased from the long-term standpoint and currently their share reaches nearly 65% (Tab. 1.1).

The above-mentioned main age groups are characterised not only by different number of persons but also by differences in the character of changes, which occurred in their number and structure during past years. Due to the long-lasting decrease in natality since eighties, which even had accelerated in nineties, the absolute number and the share of children in the population permanently decreased. However, these shortages were not regular in time, which is in relation with the irregular decrease of natality. In total, the number of people aged 0-14 decreased by 230 thousand from 1991 up to 1999, which is a decrease approximately by 18%. The share of children in population thus decreased during 1991-1999 from 24.6% down to 19.8% and reached the historical minimum. The mentioned irregularity in the natality development is reflected also in the uneven intensity of the decrease of the number of persons in the particular age groups. The most significant changes occurred in the youngest age groups. For the last 8 years (since 1991), the number of children aged under 5 decreased by more than 120 thousand, which is a decrease by more than the quarter and, at the same time, the proportion of this group of children in the population decreased from 9.0% down to 6.6% in 1999.

The irregular age structure and changes in the reproduction behaviour occurring in nineties are reflected also in the number and structure of the population aged 15-19. Since 1991, the number of persons in this main age group has increased absolutely by nearly 300 thousand, which means the increase approximately by 9%. The share of people aged 15-19 in the population increased during last ten years from 60.5% up to 64.8% in 1999. The development of the number of persons in the partial age categories of this main age group was, however, very different.

The most numerous generations of people born within the period of the natality wave during 1974 and 1979 shifted until 1999 towards the age from 20 to 25 by which the number of people in the age when the establishment of the own household and family can be assumed increased. During 1991-1999 the number of young people aged 20-25 increased by nearly 120 thousand, which is an increase by more than a quarter while the proportion of this group in the population increased within the observed time period from 8.5% up

to 10.5%. However, the increased potential numbers of brides and grooms did not appear in the initially expected increase of annual number of marriages due to the rapid decrease of nuptiality in the young age. Similarly, by the significant decrease in the fertility of young women, no rise of a secondary natality wave occurred although the number of potential mothers highly increased.

The less numerous generations of people born in sixties reached in 1999 the age of 30-39. Since 1991 until 1999, this age group recorded decrease of the number of people by approximately 76 thousand, i.e. by nearly 10%, while the share of people aged 30-39 in the population decreased approximately by 2 percentage points.

The very numerous age groups of people born in the period of a compensation phase after the World War II as well as the age groups of people born in the first half of fifties were at the beginning of nineties at the age of approximately 35 to 45. But currently these age groups shifted to the age of nearly 50, thus to the age in which it is more complicated to succeed at the labour market. These categories were in nineties on increase, in 1999 the number of people aged from 44 to 54 increased by more than 34% (i.e. more by nearly 207 thousand) as compared to 1991. The increase was a little bit higher in case of men (by 38%) than in the women's case, which might be related to the fact that in nineties the high excess male mortality in the middle age slightly decreased.

The number of people at the age of 60 and more increased in nineties by 42 thousand (a 5% increase) and, at the same time, the share of this group in the Slovak population increased from 14.9% up to 15.4% (Tab. 1.2). This development was influenced also by a positive mortality development of the middle-aged and older people. The number of people older than 59 will increase, despite the maintenance of the current mortality conditions, due to the ongoing shift of the powerful population age groups towards this age. By dividing this age category into smaller groups we find out some differences in the development of particular age groups. When evaluating the number of persons in these age groups, it is necessary to take into account the growing tendency of mortality due age. Some characteristic features of the age structure from the past can be step-by-step changed or lost. Despite the fact that twenties were the time period of a natality wave, due to a higher mortality level especially in seventies and eighties, the generations born in this time period did not significantly differ by their number from the generations of younger people. Moreover, during nineties the people born within the increased natality shifted from the age about 60 to the age about 70. Therefore, in 1999, as compared to 1991, we can observe a moderate decrease of the number and share of the people aged from 60 until 69 and, on the contrary, a slight increase of the number and proportion of people aged from 70 to 79. The number and the share of people aged 80-84 are both influenced

by a very small number of people born during 1915-1919. This is the reason why the proportion of this population age group is very small. It creates only 0.9% (in 1991 it was 1.35%) while from 1991 until 1999 its

number fell by more than 21 thousand, which is more than 30%. In total, the proportion of people aged 80 and over in the Slovak population is not high; they form less than 2% from the total population (Tab. 1.2).

Tab. 1.2: Structure of population aged 60 and over

	1970	1980	1991	1992	1993	1994	1995	1996	1997	1998	1999
Number of persons											
60-64	214 971	151 200	237 234	237 545	234 356	230 621	226 290	220 899	216 018	214 775	215 704
65-69	170 830	182 422	216 069	212 453	209 253	208 798	209 918	210 018	210 824	208 390	205 296
70-74	126 137	157 005	131 885	153 438	174 662	179 022	181 378	179 638	177 306	174 666	174 871
75-79	70 046	101 385	97 777	84 814	72 650	74 850	83 384	99 971	116 736	132 065	135 292
80-84	33 363	54 051	69 900	71 790	72 677	73 535	68 923	61 734	53 813	45 937	48 399
85+	16 058	23 172	35 846	37 409	39 539	42 271	43 842	45 325	46 665	49 272	51 329
60+	631 405	669 235	788 711	797 449	803 137	809 097	813 735	817 585	821 362	825 105	830 891
Share in population aged 60 and over (%)											
60-64	34.05	22.59	30.08	29.79	29.18	28.50	27.81	27.02	26.30	26.03	25.96
65-69	27.06	27.26	27.40	26.64	26.05	25.81	25.80	25.69	25.67	25.26	24.71
70-74	19.98	23.46	16.72	19.24	21.75	22.13	22.29	21.97	21.59	21.17	21.05
75-79	11.09	15.15	12.40	10.64	9.05	9.25	10.25	12.23	14.21	16.01	16.28
80-84	5.28	8.08	8.86	9.00	9.05	9.09	8.47	7.55	6.55	5.57	5.82
85+	2.54	3.46	4.54	4.69	4.92	5.22	5.39	5.54	5.68	5.97	6.18
Share in total population (%)											
60-64	4.74	3.03	4.48	4.47	4.39	4.31	4.22	4.11	4.01	3.98	4.00
65-69	3.76	3.65	4.08	4.00	3.92	3.90	3.91	3.90	3.91	3.86	3.80
70-74	2.78	3.14	2.49	2.89	3.27	3.34	3.38	3.34	3.29	3.24	3.24
75-79	1.54	2.03	1.85	1.60	1.36	1.40	1.55	1.86	2.17	2.45	2.51
80-84	0.73	1.08	1.32	1.35	1.36	1.37	1.28	1.15	1.00	0.85	0.90
85+	0.35	0.46	0.68	0.70	0.74	0.79	0.82	0.84	0.87	0.91	0.95
60+	13.91	13.39	14.89	15.01	15.05	15.11	15.16	15.20	15.25	15.30	15.39

### Ageing of population

During nineties the demographic ageing of population deepened. The number of older people in the population increased (absolute ageing) as well as their share (relative ageing). The ageing of population was reflected in all indicators by which this phenomenon can be expressed. The population started to be older very significantly mainly at the bottom of the age pyramid due to the lower numbers of born children, however, the ageing occurred also at the top of the pyramid which is caused by the fact that still more and more people reach the older age. By several authors, the main determinant of the population ageing in the "demographically advanced" countries is the decrease in natality or fertility while changes in mortality contribute to ageing to a minor extent. However, it can be assumed that the ageing from the top of the pyramid will significantly accelerate at the beginning of the 21<sup>st</sup> century by the shift of numerous age groups born after the World War II towards the post-productive age.

The demographic ageing of the Slovak population is documented also by the growth of some mean values, e.g. the average and median ages, while in 1999, both of these indicators reached the highest values until nowadays. The average age increased until 1999, as compa-

red to 1970, by nearly 4 years, from 32.0 up to 35.7 years and the median age increased from 28.2 up to 33.9 years, which is an increase by approximately 6 years. In the long-term development, both the average age as well as the median age is higher in case of women rather than in case of men, while the difference between genders is deepening. The difference in the average age of men and women increased from 1970 by 1.9 years up to 3.1 years in 1999 and if the median age was in consideration, the increase would be from 2.5 up to 3.4 years (Tab. 1.3).

Other indicators characterising the process of ageing may be the age index and Biller index, the calculations of which are based on the biological (reproductive) population groups. The development of the age index for the past 30 years shows the change in the relation between the pre-reproductive and the post-reproductive components of population. In 1970, the pre-reproductive component significantly prevailed, the age index reached the value of approximately 121%, even in 1991 the number of people aged 0-14 slightly exceeded the number of people aged 50 and over in Slovakia, but in 1999 only 76 children fell on 100 people of the post-reproductive age. Similarly, the Biller index, which

puts into ratio all three biological population groups, witnesses the ageing of our population. Its value subsequently decreases as the share of the children component decreases. In 1991, the index in consideration was

positive, although very close to zero, but after this year, with regard to the prevalence of the post-reproductive group over the pre-reproductive group, it reached negative values (Tab. 1.4).

Tab. 1.3: Selected mean values of age

	1970	1980	1991	1992	1993	1994	1995	1996	1997	1998	1999
Median age											
Males	27.0	27.9	30.2	30.4	30.6	30.9	31.2	31.4	31.7	32.0	32.2
Females	29.5	30.1	33.1	33.4	33.6	33.9	34.3	34.6	34.9	35.2	35.6
Total	28.2	29.0	31.6	31.9	32.1	32.4	32.7	33.0	33.3	33.6	33.9
Average age											
Males	31.1	31.4	32.2	32.4	32.5	32.8	33.0	33.3	33.6	33.8	34.1
Females	33.0	33.7	35.1	35.3	35.5	35.7	36.0	36.3	36.6	36.9	37.2
Total	32.0	32.6	33.7	33.9	34.0	34.3	34.5	34.8	35.1	35.4	35.7

Tab. 1.4 Indicators of the population ageing

	Age index (%)	Ageing index (%)	Biller index (%)
1970	121.0	33.6	9.5
1980	107.2	39.7	3.5
1991	101.6	42.4	0.7
1992	99.3	43.8	-0.3
1993	96.9	45.3	-1.4
1994	93.7	47.2	-2.9
1995	90.8	49.1	-4.2
1996	87.6	51.2	-5.7
1997	83.8	53.4	-7.5
1998	80.1	55.4	-9.4
1999	76.4	57.5	-11.3

In nineties, the ratio of people aged 65 and over to the children component of population sharply changed (ageing index). In 1991, still 42 people aged 65 and more fell on 100 people younger than 15, in 1999 it was nearly 58 which is approximately by 24 people more than in 1970 (Tab. 1.4).

### Economic burden

Changes in the population age structure in nineties are reflected also in the economic burden of population. The development of the dependency indices (I, II) and the economic dependency ratio is influenced by the decreasing share of children in the population (since 1991 until 1999) by approximately 5%, stagnating proportion of people in the post-productive age (at the level around 17.5%) and by a moderate increase of the share of productive component of population (from 1991 up to 1999 the growth by nearly 4%). While in 1991 more than 72 economically dependent people fell on 100 people in the productive age, in 1999 this number decreased down to 61 people. Such a sharp decrease of the economic dependency ratio is caused mainly by the decreasing share of children in the population which

is reflected also by the deep fall of the dependency index I in nineties, from approximately 42 children falling on 100 people of the productive age group in 1991 down to 32 children in 1999. The dependency index II expressing the number of people in the post-productive age falling on 100 people in productive age fell during nineties as well but not so significantly. While in 1991 nearly 30 people in post-productive age fell on 100 people in productive age, in 1999 it was nearly 29, which actually means the decrease of this index by 1% only (Tab. 1.5, Tab. 1.6).

On the one hand, one can say that from the economic standpoint it is favourable if relatively low number of dependent people falls on the productive component of population. However, on the other hand, it can be assumed that this is only a temporary phenomenon and with regard to the assumed acceleration of the demographic ageing at the beginning of the 21<sup>st</sup> century, the share of the post-productive age group of population will grow at the cost of the productive age group by which the change in the development tendency of the economic burden of population will occur.

### Population by sex

Beside the age structure, an important feature of population is its structure by sex, whereas in demographic analysis a combination of the population structure by both characteristics is very frequently in question. The structure by sex depends on various factors, the ratio of both genders at birth, where the males are slightly prevailing, furthermore on mortality which is in the SR higher at all age categories in case of men rather than in case of women (so-called excess male mortality), and on a long-term selective migration.

In total we can say that the Slovak population is characterised, from the long-term development point of view, by a positive femininity, although the femininity index is very variable, which is influenced by several factors of the social development (emigration, war losses etc.). For the last thirty years we can observe the growth of this index (Tab. 1.7). In 1970, 1026 women fell on 1000 men, in 1991 it was 1050 and in 1999 almost 1057 women.

The ratio of genders in the young age is very even. Regarding the biologically given moderate prevalence of the born boys, at the lower age categories the share of boys is higher than in case of girls, which, however, is diminishing in time. The masculinity of the young population decreases in time due to the higher mortality level which is, on the one hand given biologically and, on the other hand, caused by the fact that part of boys

and young men live in a more risky way and become more frequently victims of injuries and accidents. The age, in which women start to prevail the number of men, is step-by-step increasing in Slovak population. In 1970, males only under the age of 24 were slightly prevailing and from the age of 25, females started to prevail, while in 1999, males were prevailing females even up to the age of 42 (Graph 1.2, Graph 1.3).

Tab. 1.5: Structure of population by economic groups

	1970	1980	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>Total</b>											
Total	4 539 890	4 996 329	5 295 877	5 314 155	5 336 455	5 356 207	5 367 790	5 378 932	5 387 650	5 393 382	5 398 657
Pre-productive age	1 239 782	1 303 715	1 301 474	1 278 904	1 256 032	1 225 988	1 195 288	1 164 897	1 133 678	1 101 841	1 069 374
Productive age	2 553 465	2 878 486	3 076 411	3 111 519	3 151 578	3 194 595	3 230 768	3 266 079	3 299 779	3 332 060	3 361 114
Post-productive age	746 643	814 128	917 992	923 732	928 845	935 624	941 734	947 956	954 193	959 481	968 169
<b>Males</b>											
Total	2 240 386	2 455 591	2 583 230	2 590 230	2 600 047	2 608 901	2 613 712	2 618 434	2 622 005	2 623 692	2 625 126
Pre-productive age	634 561	665 750	664 672	652 985	641 797	626 676	610 853	595 837	579 568	563 558	546 980
Productive age	1 324 922	1 502 636	1 595 139	1 611 739	1 632 053	1 654 683	1 674 682	1 694 468	1 713 251	1 731 671	1 748 560
Post-productive age	280 903	287 205	323 419	325 506	326 197	327 542	328 177	328 129	329 186	328 463	329 586
<b>Females</b>											
Total	2 299 504	2 540 738	2 712 647	2 723 925	2 736 408	2 747 306	2 754 078	2 760 498	2 765 645	2 769 690	2 773 531
Pre-productive age	605 221	637 965	636 802	625 919	614 235	599 312	584 435	569 060	554 110	538 283	522 394
Productive age	1 228 543	1 375 850	1 481 272	1 499 780	1 519 525	1 539 912	1 556 086	1 571 611	1 586 528	1 600 389	1 612 554
Post-productive age	465 740	526 923	594 573	598 226	602 648	608 082	613 557	619 827	625 007	631 018	638 583
<b>Total (%)</b>											
Pre-productive age	27.3	26.1	24.6	24.1	23.5	22.9	22.3	21.7	21.0	20.4	19.8
Productive age	56.2	57.6	58.1	58.6	59.1	59.6	60.2	60.7	61.2	61.8	62.3
Post-productive age	16.4	16.3	17.3	17.4	17.4	17.5	17.5	17.6	17.7	17.8	17.9
<b>Males (%)</b>											
Pre-productive age	28.3	27.1	25.7	25.2	24.7	24.0	23.4	22.8	22.1	21.5	20.8
Productive age	59.1	61.2	61.7	62.2	62.8	63.4	64.1	64.7	65.3	66.0	66.6
Post-productive age	12.5	11.7	12.5	12.6	12.5	12.6	12.6	12.5	12.6	12.5	12.6
<b>Females (%)</b>											
Pre-productive age	26.3	25.1	23.5	23.0	22.4	21.8	21.2	20.6	20.0	19.4	18.8
Productive age	53.4	54.2	54.6	55.1	55.5	56.1	56.5	56.9	57.4	57.8	58.1
Post-productive age	20.3	20.7	21.9	22.0	22.0	22.1	22.3	22.5	22.6	22.8	23.0

Tab. 1.6. Economic burden of population

	1970	1980	1991	1993	1994	1995	1996	1997	1998	1999
Dependency ratio I (%)	48.6	45.3	42.3	39.9	38.4	37.0	35.7	34.4	33.1	31.8
Dependency ratio II (%)	29.2	28.3	29.8	29.5	29.3	29.2	29.0	28.9	28.8	28.8
Economic dependency ratio	77.8	73.6	72.1	69.3	67.7	66.2	64.7	63.3	61.9	60.6

Starting with the age of 84, the number of women falling on 1000 men does not decline below 2000 while the femininity index reaches the maximum value at the age of 95 where 2644 women fall on 1000 men (Graph 1.2). This inequality of genders has risen not only as a consequence of a long-term excess male mortality but is also a result of war losses in case of men and their

higher emigration during 1948-1989. A slight reduction in mortality differences at medium and old age between men and women in nineties contributes to the fact that the relations between genders in case of older population are not deepening. The prevalence of women in case of older population is a characteristic feature in all advanced countries.

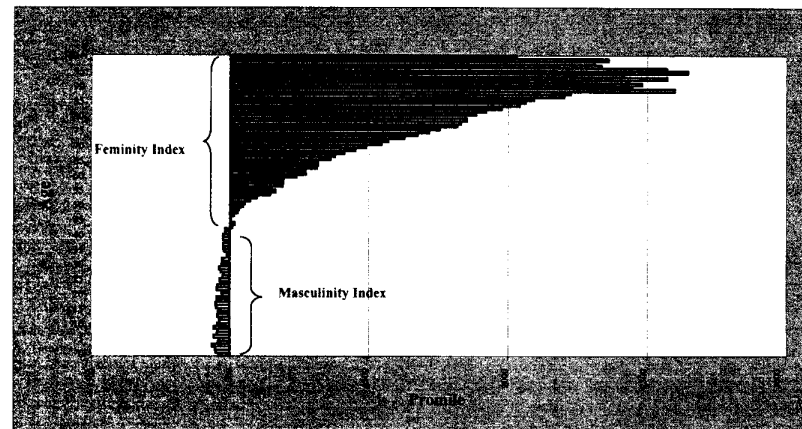
Tab. 1.7: Population by sex

	1970	1980	1991	1993	1994	1995	1996	1997	1998	1999
Share of women (%)	50.65	50.85	51.22	51.28	51.29	51.31	51.32	51.33	51.35	51.37
Number of women per 1000 men	1 026	1 035	1 050	1 052	1 053	1 054	1 054	1 055	1 056	1 057

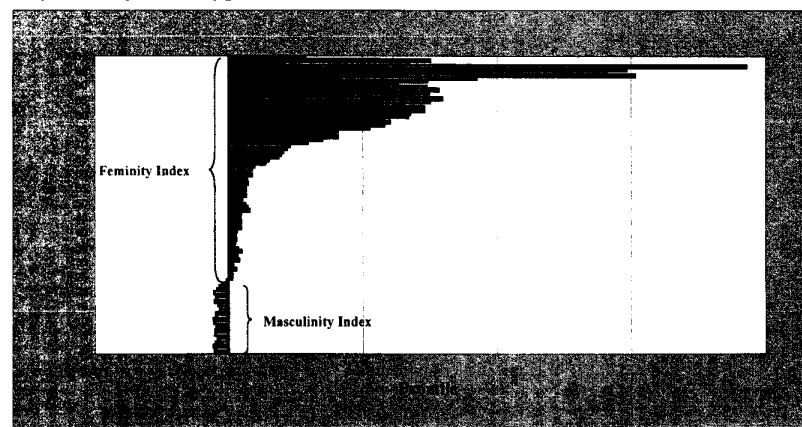
In 1970, the prevalence of genders had the same features as nowadays; the difference is on the one hand in the already mentioned lower age where females started to prevail males and, on the other hand, in the

fact that the femininity index reached lower values. With the exception of some age categories in case of the oldest population, the number of women falling on 1000 men did not exceed the value of 2000 (Graph 1.3).

Graph 1.2: The prevalence of genders in 1999



Graph 1.3: The prevalence of genders in 1970





### Population by marital status

Changes in the demographic behaviour are reflected also in the population structure by marital status.

The decrease in nuptiality of young people and the rise of the age at marriage appeared in nineties by the increase of the number of single persons (expressed in absolute and relative values) older than 15, decrease of the number as well as the share of married people and consequently the share of divorced at younger age (under 24) declined. The relatively high number of divorces, which generally has had a growing tendency in

our country, caused the decrease of the share of people living in wedlock under the age of approximately 60. A permanent rise of divorce had a consequence in the growth of the number of divorced people and the increase of their share in population. From 1991 to 1999 the number of divorced persons increased by approximately 50% and their share in the population aged 15 and over increased from 3.9% up to 5.4% while in absolute and relative figures the prevalence of divorced women is being kept (Tab.1.8).

Tab. 1.8: Structure of population aged 15 and over by marital status (%)

	1980	1991	1995	1999	1980	1991	1995	1999
	Males				Females			
Single	27.79	27.94	30.46	32.86	19.81	19.53	21.89	24.16
Married	66.98	65.72	62.69	59.93	63.17	60.86	57.96	55.39
Divorced	2.03	3.29	3.98	4.67	2.80	4.39	5.17	5.99
Widowed	3.20	3.05	2.88	2.54	14.22	15.23	14.98	14.46

On the other hand, we observe in population a moderate increase of the widowed persons with the decrease in the number of widowers hidden in the background (since 1991 by approximately 10%) and a slight increase of widows (by nearly 3%). It can be assumed that the proportions of widowed persons will diminish proportionally to the decrease in the mortality intensity, especially in the age of 50, mainly in case of men. The absolute figures of widowed women are, however, still more than five times higher than the numbers of widowers.

From the demographic standpoint, the number of women in the reproductive age is important (aged from

15 to 49), especially in the age of the highest fertility (in the age from 20 to 29) as well as the share of these women living in wedlock. From this point of view, both the increase of the number of women in the reproductive age by nearly 7.5% and the increase of their share in the population from 25.4% upwards to 26.8% during 1991-1999 might be evaluated very positively. The share of this age category of women in the population of women exceeded 50%, whereas in 1999, it was even 52.2% (Tab. 1.9). It is mainly the result of the above mentioned natality wave from seventies which continuously reached the reproductive age.

Tab. 1.9: The number and share of women in the reproductive age

	1970	1980	1991	1993	1994	1995	1996	1997	1998	1999
Women in reproductive age	1 141 561	1 232 717	1 347 287	1 381 575	1 399 053	1 414 853	1 428 139	1 436 618	1 442 767	1 448 861
Share in total population (%)	25.2	24.7	25.4	25.9	26.1	26.4	26.6	26.7	26.8	26.8
Share in woman population (%)	49.6	48.5	49.7	50.5	50.9	51.4	51.7	51.9	52.1	52.2

The number of children born in Slovakia is still in a strong relation with the number of young married women. Whereas the total number of persons living in wedlock aged 20-29 in nineties increased, the number of persons living in wedlock within this age interval decreased (since 1991 until 1999, there was a decrease by nearly 22%). In 1991, approximately 29% of men and 56% of women aged 20-24 lived in wedlock, however, in 1999 there were approximately 14% of men and 31% of women. Similar decrease is to be seen also in the age category of 25-29 where the share of married men decreased from 68% down to 51% and the share of married women declined from 80% to 65%.

### Age structure of population in regions

The characteristic feature of each larger territorial area is the existence of the differentiated population structures. The same is true for Slovakia because among

its particular regions we can observe significant differences in the demographic behaviour, which are consequently reflected in the level of nuptiality, divorces, abortion, fertility and mortality. The different economic and social development of particular regions indicates the migration of population, which also contributes to the formation of the age structure of the population of individual regions. From the facts mentioned above, it is clear that the age and sex structure of population is very different within the regions of Slovakia. The important differences can be observed even at the level of regions and they rise when making analysis at the level of districts or municipalities.

If we trace the regional differences of the age structure at the level of regions of the SR based on several indicators for 1999, two regional types will mainly appear. The first type is formed by regions with the progressive age structure of population e.g. the region of

Žilina, Prešov and Košice. As compared to the Slovak average, these regions are characterised by a high share of people aged 0-14 (over 20%) and, on the contrary, by a low share of the older population. The proportion of people aged 60 and over does not exceed in these regions 15% and the share of people aged 80 and over is lower than 1.8%. The high level of fertility in these regions ensures the prevalence of the young population and a slower ageing of population. The slower ageing in comparison with other parts of Slovakia is documented also by the lowest value of the ageing index, which does not reach 52%, as well as by the fact that half of the

population is in these regions younger than 33 years. Due to the high proportion of the children component in these regions, the economic dependency ratio significantly exceeds the Slovak average (Tab. 1.10).

The second type is formed by regions with the regressive age structure of population, thus with the high share of the older population and a relatively low share of children. The population of the following regions can be classified there: Nitra, Trenčín, Trnava and Banská Bystrica. This type of the age structure is conditioned mainly by two facts – the fertility and migration.

Tab. 1.10: Selected indicators of the population structure in regions of the SR in 1999

	BL	TA	TC	NI	ZI	BC	PV	KI <sup>1</sup>
Age group 0-14 (%)	16.36	18.6	18.94	18.13	21.21	19.05	23.66	21.16
Age group 60+ (%)	15.93	15.38	15.94	17.07	14.65	16.28	13.7	14.58
Age group 80+ (%)	1.94	1.83	1.93	2.13	1.72	2.11	1.57	1.63
Share of women aged 15-49 in woman population	54.12	52.95	52.31	51.39	52.17	51.65	51.65	52.09
Average age	37.5	36.1	36.2	37	34.8	36.4	33.4	34.8
Median age	36.9	34.4	34.6	35.5	32.5	35	30.5	32.8
Ageing index (%)	73.6	60.85	61.88	70.04	51.13	63.68	42.68	50.3
Economic dependency ratio (%)	54.09	57.82	59.94	61.14	61.74	61.32	65.39	61.87
Femininity index (%)	1 107	1 051	1 042	1 068	1 033	1 069	1 033	1 057

The long-range lower level of live births is related to the faster ageing of population; thus, the share of the older population is increasing. The economically less advanced regions lose by migration mainly the productive-age population; their population is ageing. The share of children in these regions does not reach the Slovak average; it oscillates between 18-19%. The proportion of the older population is higher as the average share in Slovakia while the maximum share is reached by the region of Nitra with more than 17% of people aged 60 and over and with more than 2% of people aged 80 and over. Thus, it results into the fact that the ageing index is from this type of regions the highest in the region of Nitra (70%); the same is true for the average age (37 years) and for the median age (35.5 years). From this type of regions, the economic dependency ratio exceeds the level of 61%, in addition to the region of Nitra, also in the region of Banská Bystrica. Those are the only regions in Slovakia where the share of people aged 60 and over is higher than 16% and the share of people aged 80 and over is higher than 2% (Tab. 1.10).

The region of Bratislava is a special case. Mainly thanks to capital Bratislava, being the important urban centre, this region benefited in the past from the migration of young people. In this region the ageing index is the highest from all regions (73.6%), also the average and median age are the highest (37.5% and 36.9% respectively) which is, however, not conditioned by an extreme share of the old-age population but rather by the lowest share of people aged 0-14 (16.4%). In Bratislava, these values are even higher; the average age is 38 years, the median age is 37.8 years and the ageing index is even 77.9%. On the other hand, the economic dependency ratio in the region of Bratislava reaches the minimum from 8 regions (54.1%). It is a consequence of the mentioned low share of the children component as well as the highest proportion of the population in the productive age (64.9%). From all regions of the SR, the femininity is the highest one in this region (the femininity index is 1107%), which is caused mainly thanks to Bratislava where almost 1128 women fall on 1000 men (Tab. 1.10).

<sup>1</sup> BL – Bratislava region, TA – Trnava region, TC – Trenčín region, NI – Nitra region, ZI – Žilina region, BC – Banská Bystrica region, PV – Prešov region, KI – Košice region

## 2. Nuptiality

Tab. 2.1: Basic characteristics of nuptiality

		1985	1990	1993	1994	1995	1996	1997	1998	1999
Marriages		38 930	40 435	30 771	28 155	27 489	27 484	27 955	27 494	27 340
Crude marriage rate		7.54	7.63	5.78	5.27	5.13	5.11	5.19	5.10	5.07
Total marriage rate	Males	0.836	0.919	0.708	0.613	0.588	0.570	0.569	0.555	0.544
	Females	0.912	0.942	0.713	0.613	0.590	0.575	0.581	0.563	0.555
Mean age at marriage	Males	25.8	25.9	25.8	26.1	26.3	26.8	27.2	27.3	27.7
	Females	23.1	23.1	23.1	23.3	23.5	23.9	24.3	24.4	24.8
Mean age at first marriage	Males	x	x	24.3	24.5	24.7	25.0	25.3	25.6	25.9
	Females	x	x	21.9	22.1	22.3	22.6	22.9	23.1	23.4
First marriages (%)	Males	89.7	89.5	89.7	89.3	89.4	88.3	87.8	88.3	88.0
	Females	91.3	90.9	91.1	90.9	91.2	90.1	89.4	89.9	89.9

In the second half of the twentieth century, the number of marriages oscillated in Slovakia between 27 and 44 thousand depending mainly on the number of people in the age of the highest nuptiality. In this period, the crude marriage rate, the most simple relative indicator, variably decreased from the values around 11‰ at the beginning of fifties to the level of around 7‰ in sixties, increased even to the level of 9‰ in the half of seventies and since that time it was more or less continuously decreasing down to values around 5‰ in the half of nineties. From that time period, it keeps these values with only negligible deviations.

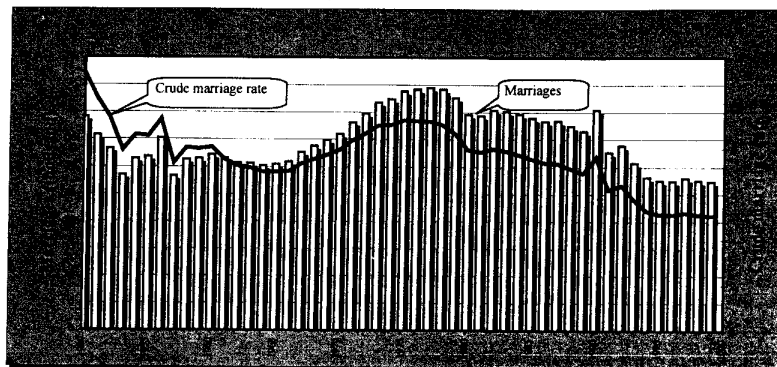
If we take into account that within the stationary population the crude marriage rate should be equal to approximately 7.1‰, we can say, that the nuptiality intensity in Slovakia was, except for the last decade, quite high (Graph 2.1). It may be related to various circumstances. From the beginning, it was mainly the reflection of the compensation phase after the World War II. This effect was multiplied by the inflow of powerful age groups born in twenties into the age of highest nuptiality, which recalled the secondary wave of strong marriage age groups in seventies. The increased intensity of nuptiality was also a consequence of the continuous diminishing of the age at marriage during fifties where the patterns of the reproduction behaviour changed. At those times, the age at marriage decreased approximately by one year, which represents the increase in the crude marriage rate during ten years nearly by 10%. The marriage kept a relatively high status - until the beginning of nineties nearly 95% of population aged 50 got married at least once and around 93% of children were born within marriage. The high status of marriage, however, did not mean its stability. The increasing number of divorces and at the same time the tendency to remarry had a consequence in the further increase of the crude marriage rate. Approximately one third of divorced people will remarry; since eighties, around 11% of grooms or 9% of brides were divorced. For comparison, in the Czech Republic (CR), this ratio was nearly twofold thanks to which the crude marriage rate in the CR was, as a rule, higher than in the SR. The

nuptiality intensity was to a certain extent influenced also by pro-natality measures (a development of the construction of dwellings at the beginning of seventies) or by measures having anti-natality effects (the slow-down of the construction of dwellings at the end of seventies, cancellation of the subsidies on the children consumer goods in 1979).

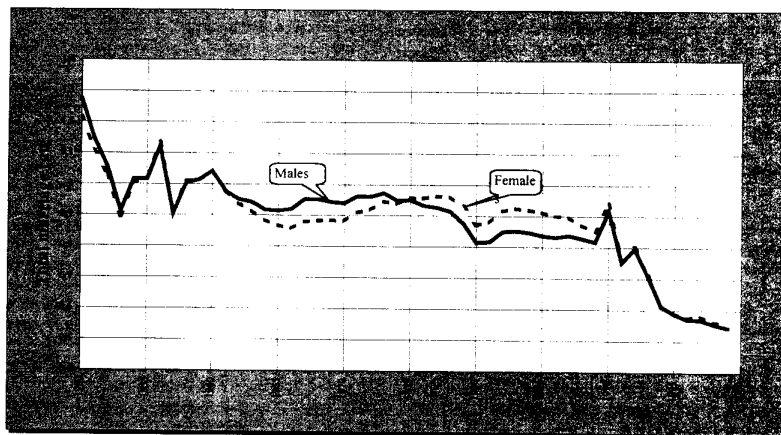
Similar information on the development of the nuptiality intensity is given also by the analysis of the total marriage rate (Graph 2.2), which is netted from the impact of the age structure and the marriages of higher order. The post-war compensation phase linked with the shift of the age at marriage downwards to lower values is a cause why the total marriage rate was until 1960 higher than 1. Except for fifties and nineties, the total marriage rate in the SR sustained at the levels between 0.85 and 0.95 for men as well as for women. It is a peculiarity that at the beginning of sixties, the powerful age groups of women began to enter the age of the highest nuptiality. There is a surplus of single women at the marriageable age and thus the total marriage rate of women is lower than the total marriage rate of men. In the half of seventies the situation turned around; the weak age groups had entered the age of the highest nuptiality, firstly women and then also men, and the total marriage rate of women increased again. Since the beginning of nineties, the total marriage rate at both genders has rapidly decreased.

In the development of the crude marriage rate during the last decade is conspicuous its single 10-percentage increase in 1990 and consequently a 20-percentage decrease in 1991, which is an evident reaction to the information on the cancellation of loans for the newly-married couples being under preparation from January 1, 1991. Many couples who had intended to contract a marriage speeded up their decision in order to get married before the end of 1990. The number of such couples in the age under 30 (a condition for obtaining the loan for newly-married couples) was around 5 thousand; the number of marriages contracted in 1991 was then lower by this number, as compared to the tendency.

Graph 2.1: Marriages and the crude marriage rate



Graph 2.2: Total marriage rate



The real breakpoint in the development of nuptiality, which meant a change in the demographic behaviour, has started since the end of 1992 and is related with the economic and social transformation of the country (increase in living costs, reform of the social policy, cancellation of the loans for newly-married couples, termination of the massive construction of dwellings). The nuptiality decreased most radically in 1993 and 1994. Since 1996, the crude marriage rate has stabilised at quite low values (around 5‰), despite the fact, that the powerful age groups born in seventies matured to the age of the highest nuptiality. At the same time, a change in the age structure of married people occurred while the number of marriages at the age of 25-29 slightly increased. It is likely that this tendency will continue. There are no direct statistical data on

consensual unions; indirect evidence on their increase is given, for example, by the figure on children born outside marriage, which increased in nineties by 50%.

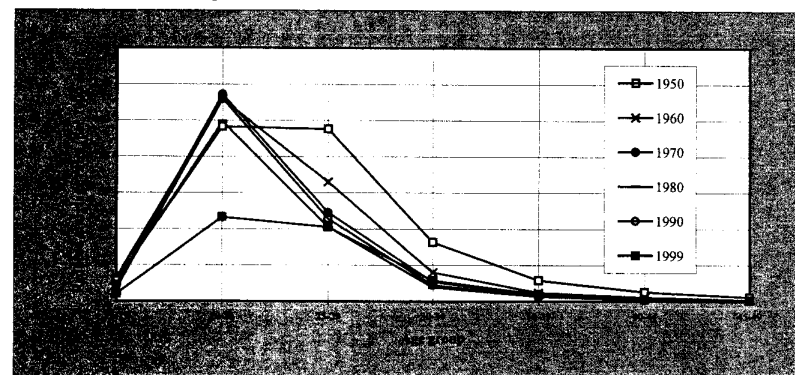
Lower nuptiality intensity, a higher age at marriage and a higher occurrence of consensual unions are part of demographic behaviour typical for the second demographic transition. After political changes in 1989, it has accommodated, in line with the expectations, also in Slovakia. On the one hand, it is a consequence of new life possibilities, which the young people are nowadays faced with. On the other hand, after 1990 the old patterns of the reproduction behaviour, with small changes valid 30 years, became inapplicable. The early marriage was typical for them (after finishing the school, military service and getting a job), which was at the same time a way to obtain an apartment. The early beginning of

sexual intercourse, which anticipated a possible pregnancy of the partner and a consequent marriage, was a socially accepted solution. After the termination of the massive construction of dwellings subsidised by the government, this possibility, mainly in cities, disappeared. The transition to new patterns was paradoxically accelerated by the intensive campaign against the abortions running at those times. In the case of possible pregnancy of the partner, neither the marriage nor the induced abortion were a satisfactory solution; it has resulted into a modern contraception. Since 1992 in the SR, the prevalence of using the contraception means was recorded again. Thus, the consensual unions became technically and later also socially feasible and acceptable.

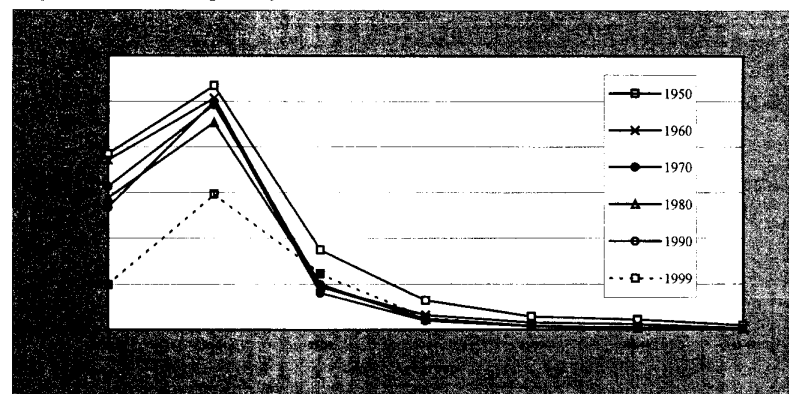
### Nuptiality by age and sex

In the first half of the twentieth century the average age at first marriage was quite high (around 26.5 years in case of men and 23 years as for women). In fifties, it had decreased quite fast by approximately one year (Graph 2.3, 2.4) and during the next 30 years. It remained at the levels around 22 years as far as women are concerned, while in case of men, the decrease continued from the age of around 25.5 downwards to 24.5. After 1990, a change occurred and the mean age at first marriage started to grow up again. In 1999, the mean age at first marriage was 25.9 for men and 23.4 if women are under consideration; the median age was 25.0 and 22.7 respectively.

Graph 2.3: Reduced marriage rates, males

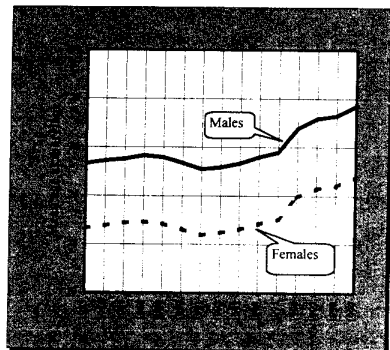


Graph 2.4: Reduced marriage rates, female



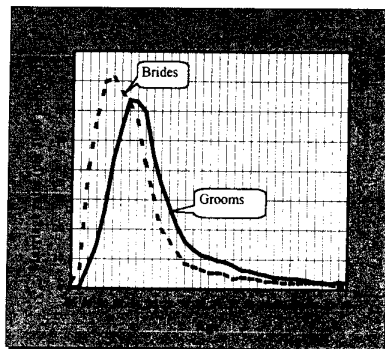
The similar course has been recorded also in the development of the mean age of all marriages (Graph 2.5), however, the decline in fifties and sixties was slower and since the half of seventies, a moderate increase has replaced it. It is a consequence of an increasing share of marriages of the higher order. Irregularities in the development of the mean age at marriage in nineties are

Graph 2.5: Mean age at marriage



the result of above described irregularities in the development of nuptiality. In 1999, the mean age of all married couples was 27.7 in case of men and 24.8 in case of women; the median age was 25.5 and 23.2 respectively. The age of the highest nuptiality was equally for the first marriages as well as for all marriages 23 years for men and 21 years for women (Graph 2.6).

Graph 2.6: Nuptiality by age in 1999



Tab. 2.2: Marriage rates by age (per 1000 persons)

	1985	1990	1993	1994	1995	1996	1997	1998	1999
All grooms									
15-19	12.37	12.83	11.30	8.02	6.81	5.88	4.98	4.63	4.05
20-24	102.25	113.36	85.39	70.49	65.04	59.89	56.18	51.42	46.79
25-29	46.52	49.78	37.64	35.82	36.22	38.33	40.88	41.84	43.30
30-34	11.67	13.07	10.74	11.30	11.64	12.59	13.25	14.06	14.80
35-39	5.99	6.08	4.72	4.91	5.10	5.14	6.40	6.47	6.65
40-44	3.69	4.06	3.07	2.77	2.81	3.26	3.28	3.22	3.62
45-49	3.01	3.18	2.45	2.12	2.35	2.21	2.63	2.38	2.58
50-54	1.97	2.04	1.63	1.64	1.61	2.20	2.18	2.10	2.21
55-59	1.52	1.57	1.39	1.36	1.28	1.52	1.64	1.42	1.53
All brides									
15-19	60.35	62.61	47.59	36.88	32.35	28.32	24.96	22.41	19.76
20-24	99.12	101.23	75.99	66.64	64.74	63.52	64.21	62.02	60.31
25-29	22.81	24.40	18.64	18.08	19.35	21.39	23.90	26.02	27.62
30-34	7.94	8.41	6.36	6.29	6.25	7.24	7.56	7.39	8.10
35-39	4.14	4.31	3.12	3.15	2.95	3.34	3.48	3.38	3.68
40-44	2.56	2.77	2.13	1.93	2.00	2.22	2.24	2.15	2.06
45-49	1.72	2.04	1.57	1.51	1.47	1.51	1.86	1.72	1.80
Single grooms									
15-19	12.36	12.87	11.30	8.02	6.79	5.88	4.98	4.63	4.05
20-24	101.25	112.10	84.51	69.85	64.49	59.35	55.75	51.03	46.51
25-29	42.50	45.66	34.53	33.13	33.66	35.50	38.28	39.30	41.03
30-34	7.40	8.93	7.66	8.16	8.63	9.39	9.81	10.63	11.53
35-39	2.30	2.57	2.31	2.44	2.69	2.65	3.42	3.73	3.84
40-44	0.87	0.97	0.85	0.72	0.84	0.97	0.99	1.19	1.21
45-49	0.55	0.61	0.51	0.25	0.41	0.30	0.46	0.45	0.53

Tab. 2.2: Continuation

	1985	1990	1993	1994	1995	1996	1997	1998	1999
Single brides									
15-19	60.21	62.54	47.55	36.83	32.32	28.29	24.94	22.38	19.75
20-24	96.52	98.63	74.16	64.93	63.41	62.10	62.64	60.93	59.29
25-29	18.69	19.92	15.14	14.91	16.37	18.23	20.49	22.61	24.53
30-34	4.42	4.67	3.67	3.69	3.96	4.31	4.44	4.46	5.17
35-39	1.72	1.69	1.30	1.31	1.24	1.30	1.47	1.37	1.50
40-44	0.65	0.79	0.57	0.50	0.52	0.61	1.87	0.53	0.48
45-49	0.24	0.27	0.26	0.39	0.27	0.24	0.33	0.26	0.30

Age at marriage belongs among demographic characteristics with the lowest variability. Roughly, half of all grooms (or brides) belong to the age group of 20-24, which, regarding the high nuptiality in the past, means that until 1990 more than half of the population contracted a marriage at this age (Tab. 2.2). In nineties, the distribution of the age at marriage extended, in 1999, 41.3% of grooms and 51.3% of brides belonged to this age group.

The nuptiality behaviour is best identifiable by marriage rates by age regardless whether they are calculated for all brides and grooms or only for singles (reduced marriage rates). It is remarkable that especially in case of women these rates practically did not change between 1960 and 1990 (as for men, the reduced rates sustained a little bit earlier), which witnesses the stability of the demographic behaviour. In 1990, due to the expected cancellation of loans for newly married couples, the marriage rates increased within the age under 29, in 1991 they diminished by this difference in order to approach the old values again in 1992.

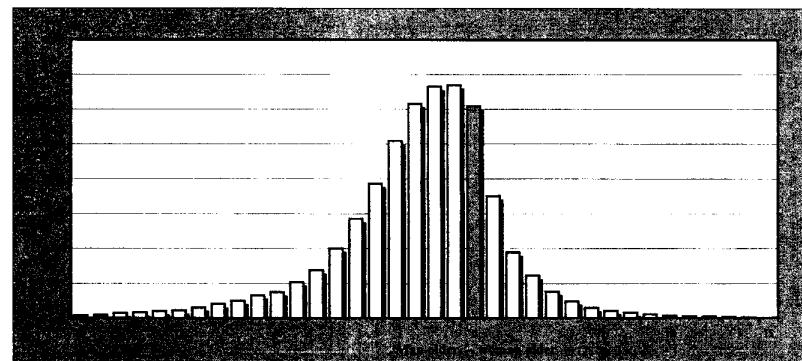
After 1992, the nuptiality decreased in all age groups while in the lowest age groups the decrease was faster. Formally, this fact appears as an increase of the average age, which in Slovakia belonged to the lowest in Europe. The sharpest decrease of nuptiality was recorded in 1993 and 1994. Since 1995, the decrease in

the age of 25 and more turned into a slight increase, which can be considered as a symptom of the compensation effect, i.e. contracting part of the postponed marriages. Only since that date we can speak about a real increase in the age at marriage.

In 1999, the reduced marriage rates of men aged 30-34 and women aged 25-29 were higher by more than 20% than in 1990, thus, these age groups became groups with the third or second highest nuptiality. The decrease in marriage rates in age groups of 15-19 and 20-24 was continuously going on. Due to a quite short time period of sustainability of these changes, it is not yet possible to evaluate the effect of the above mentioned shift of the age at marriage or divorces. However, the most risky group from the divorce standpoint are young people under 18. As a positive fact it should be highlighted that in 1999, as compared to 1990, the number of such grooms decreased from 131 down to 21 and in case of brides it was a decrease from 1342 downwards to 352.

Another indicator, which is related to age, is the difference in age of grooms and brides. It has a symmetric distribution close to the normal distribution. The average difference between the age of the groom and the age of bride has decreased since 1960 from 3.5 to less than 2.5 years. In 1999, the groom was older than the bride by 2.9 years in average (Graph 2.7).

Graph 2.7: Age difference between spouses in 1999

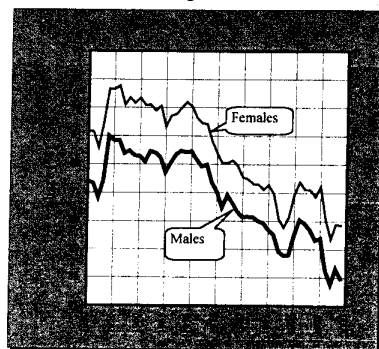


### Marriages by marital status

A remarkable feature of the nuptiality in the SR from the long-term standpoint is not only a decline of the crude marriage rate (in nineties also of total marriage rate) but, moreover, the diminishing of the share of single men and women which means that the decrease in the nuptiality of single people is even more sharp (Graph 2.8).

As compared to 1990, the number of single grooms in 1999 reached only 66% and in case of single brides it was only 67%. More significant is the decrease of widowers and widows (56% and 58% respectively as compared to 1990), which, however, is from the demographic point of view not so substantial. The most moderate was the decrease of divorced grooms and brides; recently their share (and even the absolute value) has slowly increased. From the long-term point of view, marriages between brides and grooms of the same marital status prevail. In 1999, such marriages represent 88% of all marriages (Tab. 2.3).

Graph 2.8: First marriages



Tab. 2.3: Marriages by the marital status in 1999

	Brides					
	Single	Divorced	Widowed	Total	%	Mean age
Grooms						
Single	22 834	1 129	85	24 048	87.9	26.0
Divorced	1 648	1 285	94	3 027	11.1	40.0
Widowed	86	125	54	265	1.0	55.4
Total	24 568	2 539	233	27 340	100.0	27.7
%	89.9	9.3	0.8	100.0		
Mean age	23.4	36.1	45.8	24.8		

### Nuptiality by regions

Tab. 2.4: Selected indicators of nuptiality in regions of the SR in 1999

	BL	TA	TC	NI	ZI	BC	PV	KI <sup>2</sup>
Marriages	3 062	2 744	2 949	3 586	3 622	3 171	4 208	3 998
Marriages in % (SR=100%)	11.2	10.0	10.8	13.1	13.3	11.6	15.4	14.6
Crude marriage rate	4.96	4.98	4.84	5.01	5.23	4.78	5.38	5.23
Mean age at marriage - males	30.7	27.4	27.6	27.5	26.9	28.1	26.7	27.6
Mean age at marriage - females	27.5	24.5	24.8	24.4	24.1	25.0	24.0	24.7
First marriages - males (%)	78.0	89.0	88.6	87.4	92.6	85.1	92.2	88.5
First marriage - females (%)	82.0	91.4	89.4	89.5	92.9	88.8	93.1	89.8

In 1999, the crude marriage rate oscillated from 4.78% in the region of Banská Bystrica up to 5.38% in the region of Prešov (Tab.2.4). In comparison with 1997, the crude marriage rate, from the statistical significance point of view, decreased in the regions of Trnava, Košice and Žilina, i.e. in regions, where it was the highest (except for the region of Prešov). On the contrary, it maintained the low value in the region of Bratislava and a quite high level in the region of Prešov.

Although the crude marriage rate is rather differentiated in particular regions, the structure of nuptiality by age groups is in all regions nearly the same, except for the region of Bratislava. In the region of Bratislava, the brides and grooms are significantly older. In 1999, the average age of grooms was higher by 3 years and in case of brides it was by 2.7 years. To a great extent it is the consequence of the high share of divorced persons. From the same reason, the above mean age at marriage is to be found also in the region of Banská Bystrica,

although not so significantly. In the region of Bratislava, as compared to the Slovak average, the single men and women are older, grooms in average by one year and brides by 1.2 years. There are nearly no regional differences among other regions.

Another peculiarity of the region of Bratislava is the

quite low share of single brides and grooms. In 1999, there were 20.3% grooms and 17% brides divorced, on the contrary, in the regions of Žilina and Prešov only 6.5% and 7% divorced grooms respectively and 6.3% and 6.0% divorced brides respectively.

<sup>2</sup> See Tab. 1.10.

### 3. Divorce

Tab. 3.1: Basic characteristics of divorce

	1985	1990	1993	1994	1995	1996	1997	1998	1999
Divorce petitions	12 420	12 881	11 073	11 569	11 765	12 222	11 838	12 116	12 457
Divorces	7 800	8 867	8 143	8 666	8 978	9 402	9 138	9 312	9 664
Crude divorce rate	1.51	1.67	1.53	1.62	1.67	1.75	1.70	1.73	1.79
Divorce index	20.0	21.9	26.5	30.8	32.7	34.2	32.7	33.9	35.3
Total divorce rate - males	0.222	0.243	0.219	0.232	0.238	0.249	0.244	0.246	0.252
Total divorce rate - females	0.211	0.236	0.215	0.226	0.232	0.242	0.235	0.238	0.245
Mean age at divorce - males	35.8	35.8	35.8	35.8	36.0	36.3	37.3	37.6	37.9
Mean age at divorce - females	33.0	33.4	33.2	33.2	33.5	33.7	34.7	35.1	35.3
Mean marriage duration at divorce	x	10.7	10.6	10.9	11.1	11.1	11.8	12.1	12.3
Divorces with under-age children (%)	73.1	74.3	74.3	74.4	75.5	74.5	73.0	72.5	71.2
Average number of under-age children	x	1.7	1.6	1.6	1.6	1.6	1.7	1.7	1.5

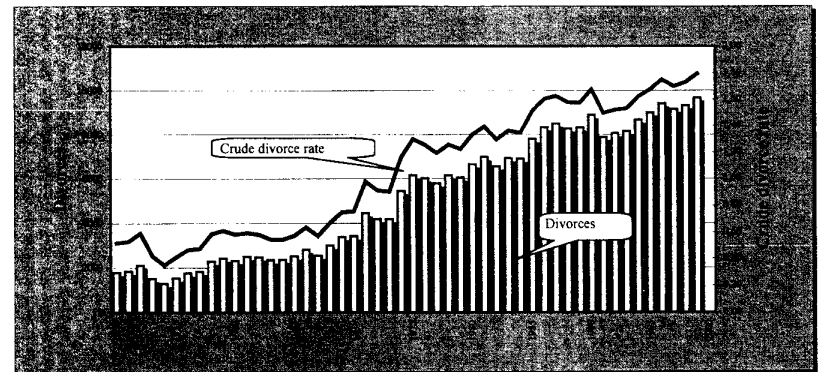
The divorce indicators characterise the stability and the quality of wedlock only relatively because they strongly depend on the legislation and the praxis of courts. However, in case of comparable legislative conditions, they are the best available indicators of the acceptance of family importance in the society.

Since the half of the twentieth century, i.e. after the World War II, the increase in divorce in all indicators can be observed in the SR, similarly as in other advanced countries. In 1949, a new form of the Act of Law on Family was adopted which recalled an increase in divorce by approximately three times as compared to the previous time period. After an initial increase, the number of divorces was until the half of sixties around the level of 2000 cases annually, in the next period it continuously grew up to the level of 8000 divorces in the half of eighties. The start of the second demographic

transition in the Western Europe had thus a certain echo also in Slovakia, which was reflected in the crisis of the wedlock stability. The legislation reacted to it by a cancellation of preliminary proceedings on the reconciliation of hostile husbands in 1973 by which the divorce proceeding simplified again.

During the next short time period of a relative stagnation, the year 1990 is to be considered as a certain exception, which might be linked to the social and political situation in 1989. Since 1992, the divorce had grown up again to a record value of 9664 divorces in 1999, despite the decrease in nuptiality in nineties. Although the number of petitions for divorce is much more stable as the number of divorces (around 12 000 annually), the share of positively arranged petitions increased. Recently, it is around three quarters from total petitions for divorce.

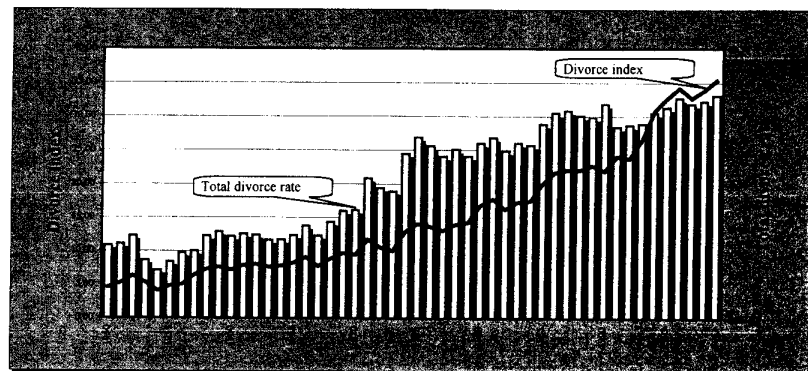
Graph 3.1: Divorces and crude divorce rate



The development of relative indicators has a similar course (Graph 3.1). From the initial values around 0.5 divorces per 1000 inhabitants in the half of the century, the crude divorce rate increased up to a record value 1.79 divorces in 1999. It is still approximately only a half of the level reached in some other advanced countries. The divorce index, which is less sensitive to

the irregularities of the age structure, shows a smoother course (Graph 3.2). Since the half of the twentieth century until the beginning of nineties it increased from 5% up to 22%. Since those days, mainly due to the decrease in nuptiality, it sharply increased up to the level of 35.4 in 1999. It means that currently more than one third of newly contracted marriages divorce.

Graph 3.2: Divorce index and total divorce rate



The most objective transversal indicator of divorce is the total divorce rate (Graph 3.2). With regard to the excess male mortality, the share of married men in the population is different from the share of married women and thus the total divorce rate of men is a little bit higher than in case of women. The current values of the total divorce rate (0.252 for men and 0.245 for women) mean that in average each fourth inhabitant of the SR goes through the divorce.

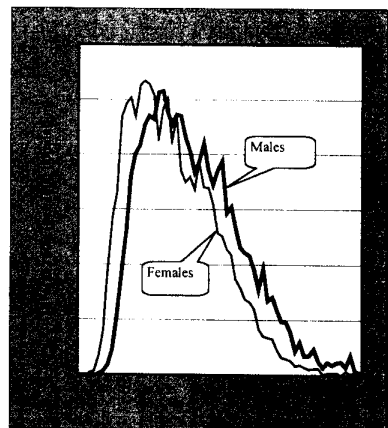
#### Divorce by age and sex

As compared to the nuptiality, the distribution of the divorce by age is much flatter. In 1999, the average age at divorce was 37.9 for men and 35.3 for women, the median was due to the left-side asymmetry a little bit lower, 36.8 years for men and 34.2 for women (Graph 3.3). Against 1990, the mean age at divorce increased by 2.1 years in case of men and 1.9 years in case of women. In total, one can observe the increase of the mean age at divorce, which is related, on the one hand, to the age structure of population, on the other hand, to decreasing intensity of nuptiality (especially at the younger age) and also to the ongoing growth of the divorce intensity at older age.

Currently, the age of the highest divorce is 30-34 for men and 25-29 for women; in case of women it is more concentrated into this age group (Tab 3.2, Tab.3.4). In comparison with the preceding years, the divorce rates decreased in the age groups 20-24 and 25-29, which is a direct consequence of the decreased nuptiality after 1990. In addition to this exception, a

permanent increase in the development of divorce by age might be observed in the overall post-war time period. A significant increase in seventies was obviously a result of the cancellation of the preliminary proceedings on the reconciliation of the hostile husbands in 1973. This trend has appeared also in the development of the total divorce rate (Graphs 3.4 and 3.5).

Graph 3.3: Divorce by age in 1999



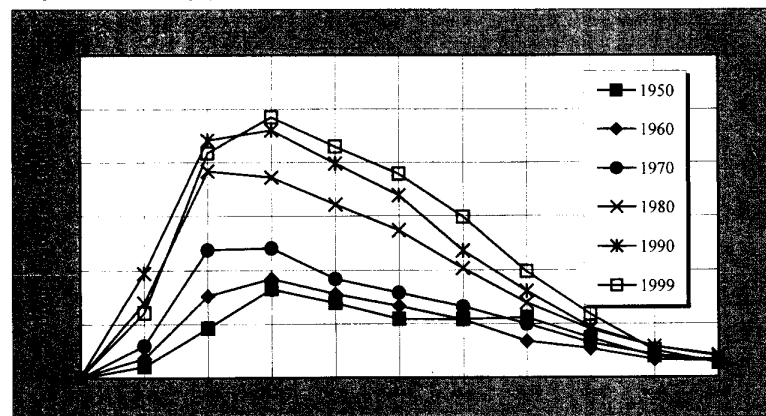
Tab. 3.2: Divorce rates by age, males (per 1000 men)

	1985	1990	1993	1994	1995	1996	1997	1998	1999
15-19	0.03	0.07	0.04	0.03	0.05	0.03	0.02	0.02	0.03
20-24	2.89	3.89	3.52	3.64	3.46	3.23	2.81	2.42	2.42
25-29	8.03	8.82	8.85	8.96	9.30	9.66	8.74	8.32	8.35
30-34	8.71	9.20	8.30	9.00	9.19	9.71	9.42	9.56	9.69
35-39	7.22	7.97	7.32	7.80	8.12	8.03	8.27	8.64	8.59
40-44	6.07	6.77	6.01	6.45	6.75	7.34	6.71	7.46	7.57
45-49	4.40	4.72	4.25	4.82	5.05	5.17	5.36	5.35	5.96
50-54	3.12	3.22	2.60	3.02	2.76	3.45	3.18	3.61	3.95
55-59	1.92	1.87	1.53	1.32	1.56	1.73	2.10	1.99	2.36
60-64	1.23	1.16	0.79	0.91	0.84	0.93	1.09	0.89	1.02
65-69	0.88	0.82	0.61	0.55	0.59	0.60	1.09	0.99	0.52
Total divorce rate	0.222	0.243	0.219	0.232	0.238	0.249	0.244	0.246	0.252

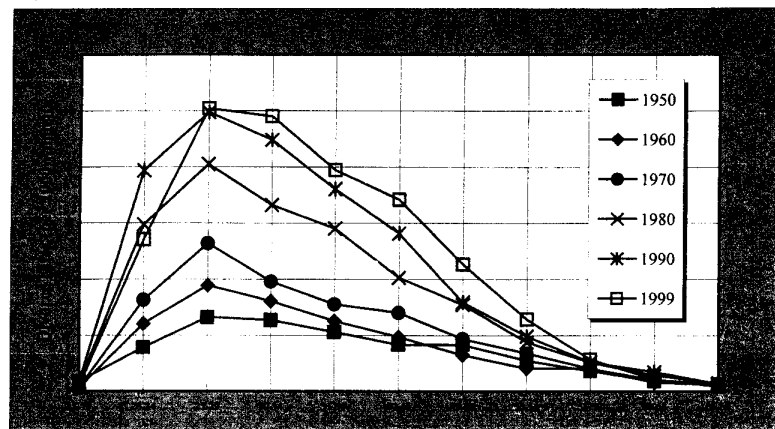
Tab. 3.3: Divorce rates by age, females (per 1000 women)

	1985	1990	1993	1994	1995	1996	1997	1998	1999
15-19	0.40	0.34	0.41	0.36	0.28	0.27	0.18	0.20	0.18
20-24	6.23	7.87	7.05	6.88	7.05	6.77	5.66	5.14	5.41
25-29	9.58	9.95	9.75	10.53	10.35	10.87	10.41	9.87	10.08
30-34	7.90	8.96	8.21	8.62	8.90	9.16	9.39	9.79	9.80
35-39	6.20	7.21	6.76	7.04	7.41	7.81	7.46	8.19	7.89
40-44	5.00	5.63	4.89	5.48	5.79	6.17	6.03	6.13	6.84
45-49	3.14	3.18	2.90	3.35	3.50	3.86	4.07	4.23	4.53
50-54	1.72	1.97	1.58	1.52	1.71	1.82	2.00	2.37	2.57
55-59	1.01	1.05	0.76	0.82	0.77	0.94	0.97	0.93	1.14
60-64	0.56	0.69	0.33	0.33	0.36	0.47	0.44	0.44	0.43
65-69	0.37	0.26	0.26	0.19	0.21	0.21	0.31	0.29	0.17
Total divorce rate	0.211	0.236	0.215	0.226	0.232	0.242	0.235	0.238	0.245

Graph 3.4: Divorce by age groups, males



Graph 3.5: Divorce by age groups, females

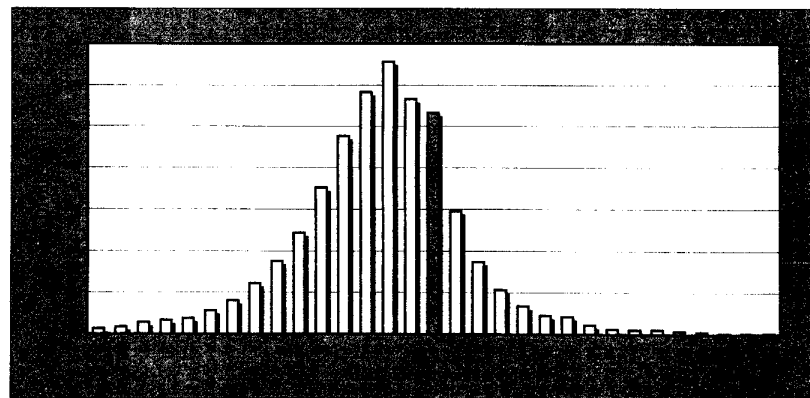


The distribution of divorce by age difference of married couple has a similar shape as the distribution of the age difference at marriage (Graph 3.6). The average is 2.5 years. If the difference in age is not too high (the man is not older by more than 8 years or a woman is not older by more than 5 years), the difference in age does not have an impact on the probability of divorce (Graph 3.7). At high age differences, also the excess male mortality should be taken into account. If the man is, e.g. older by 20 years, it means, that he will be in average older than 50 and the probability of the end of wedlock caused by the death of husband is higher than the probability of divorce.

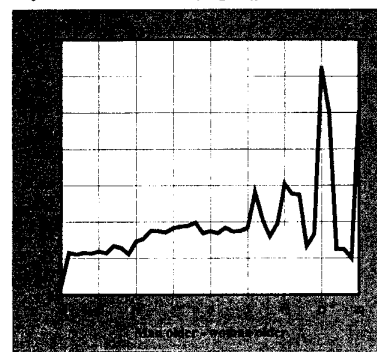
The distribution of divorce by age at marriage is not

traced in our country. However, preliminary analyses indicate that it is one of the most important factors of divorce. The marriages of brides aged 16 have the highest probability of divorce, afterwards the probability sharply declines and the most stable marriages are marriages of brides aged 20-25; from the age of 30, the probability of divorce again significantly increases. As for men, these ages are appropriately higher. As the group of brides aged up to 18 is not big, it influences the mean age at marriage (or divorce) only minimally. With regard to this fact, it can be assumed that further growth of the mean age at marriage won't have a consequence in the growth of the stability of marriages.

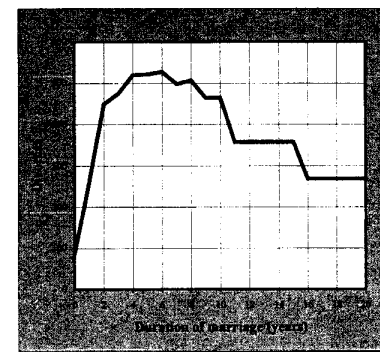
Graph 3.6: Difference in age at divorce in 1999



Graph 3.7: Divorce index by age difference in 1999



Graph 3.8: Divorce by the duration of marriage in 1999



Tab. 3.4: Divorce by the duration of marriage

	1993	1994	1995	1996	1997	1998	1999
Under 1 year	96	69	63	81	75	86	88
1-3	1 489	1 464	1 415	1 348	1 205	1 134	1 185
4-6	1 553	1 640	1 739	1 870	1 642	1 574	1 570
7-10	1 546	1 692	1 716	1 794	1 844	1 869	1 932
11-15	1 392	1 508	1 554	1 658	1 687	1 784	1 784
16-20	1 128	1 226	1 310	1 380	1 257	1 316	1 340
21+	939	1 067	1 181	1 271	1 428	1 553	1 765
Total	8 143	8 666	8 978	9 402	9 138	9 316	9 664

#### Divorce by the duration of marriage

The distribution of divorce by the duration of marriage (Tab. 3.4, Graph 3.8) has, as compared to the past, a changed shape. While before 1990 in the SR, the marriages after 4 years of duration were most frequently divorced; in 1999 this distribution had a non-remarkable and quite a flat top in the age of 4-8 years. The average length of divorced marriages was 12.3 years, the median was 11.2 years. This change in the structure of divorced marriages by duration is also a consequence of the decrease in nuptiality in nineties.

#### The results of divorce proceedings

For a long time, the share of petitions for divorce made by women is twice higher than the share of petitions for divorce made by men. The same is true about the positively arranged petitions. In 1999, 12457 divorce proceedings were finalised in the SR. In 3858 cases (31.0%) the petition was made by men, in 8587 cases by women. From this total, in 9664 cases the court proceeding ended by a divorce (of which in 3053 cases the petition for divorce was made by man), in 186 cases the divorce was refused, in 1937 cases the petition was taken back, in 77 cases the proceeding was ceased, in one case the marriage was said to be invalid and in 592 cases the court decided in another way. The average length of the divorce proceeding was 6.6 months regardless the result.

The following were the most frequent reasons for refusing the petition for divorce: a frivolous attitude to marriage (39.2%), interest of youngsters (21%), a short, not serious, breakdown (19.9%), elimination of distorting causes (8.1%).

In most of cases (88.7%), the marriage was divorced under the agreement of married couples, in 989 cases against the proposal of one involved party, in 99 cases during the stay of husband or wife abroad.

Among the reconciled marriages (the petition taken back or the proceeding ended after the interruption) there were 1442, i.e. 71.2%, marriages with young underage children, among the refused petitions there were 53 marriages (82.2%) with underage children, among divorced, there were 6836 such marriages (70.7%). The average number of underage children within the divorced marriages with underage children was 1.5.

#### Divorce by causes of divorce

In table 3.5, the overview of divorces by causes, as the court stated them, is presented. As for the previous years, also in 1999 the most frequent cause of divorce was personality differences (51.2% from the part of man and the same as for the woman), from the part of man it continued with alcoholism (12%), infidelity (10.9%) and the lack of interest in the family (10.4%).



At the woman's part, further most frequent causes are other causes (7.1%) and infidelity (6.1%). In 3.2% of cases, the court did not discover the cause from the part of man (the cause of divorce is then generally the infidelity of wife) and in 24.4 % the court did not find out the cause at woman's part (the cause of divorce is then generally the alcoholism of the husband).

lity of wife) and in 24.4 % the court did not find out the cause at woman's part (the cause of divorce is then generally the alcoholism of the husband).

Tab. 3.5: Divorce by causes in 1999

Cause on the part of woman													
Cause on the part of man	0	1	2	3	4	5	6	7	8	9	Num.	%	
Cause not given	0	0	0	33	170	71	1	0	9	0	25	309	3.2
Over-hasty marriage	1	0	379	0	0	0	0	0	0	0	379	3.9	
Alcoholism	2	827	0	20	114	43	12	0	6	0	137	1 159	12.0
Infidelity	3	684	0	11	133	48	6	0	10	0	160	1 052	10.9
Lack of interest in the family	4	612	0	3	64	223	3	0	9	0	92	1 006	10.4
Ill-treatment, criminal conviction	5	137	0	5	19	10	6	0	1	0	24	202	2.1
Personality differences	6	0	0	0	0	0	0	4 947	0	0	0	4 947	51.2
Health reasons	7	10	0	0	4	3	0	0	25	0	8	50	0.5
Sexual incompatibility	8	0	0	0	0	0	0	0	0	87	0	87	0.9
Other causes	9	89	14	87	31	0	0	13	0	239	473	4.9	
Total		2 359	379	86	591	429	28	4 947	73	87	685	9 664	100.0
%		24.4	3.9	0.9	6.1	4.4	0.3	51.2	0.8	0.9	7.1	100.0	

In comparison with the previous years, a decrease in the appearance of nearly all causes occurred, except for the personality differences or the lack of interest in family. In 1990, the court stated the differences in personality, opinion and interest in 2767 cases (31.2%); in 1999 it was in 4947 cases (51.2%). This absolute and also a relative increase might be caused by the changing

practise of courts (the court does not further investigate what is hidden under this universal cause of divorce), by changing of the attitude of husbands to the divorce procedure (a certain form of divorce by an agreement), or by an increasing non-readiness and inability of people to live in wedlock.

#### Divorce by regions

Tab. 3.6: Selected indicators of divorce in regions of the SR in 1999

	BL	TA	TC	NI	ZI	BC	PV	KP <sup>3</sup>
Divorce petitions	1 857	1 209	1 244	1 803	1 322	1 985	1 187	1 850
Divorces	1 460	970	1 008	1 427	1 049	1 495	839	1 416
Divorces in % (SR=100%)	15.1	10.0	10.4	14.8	10.9	15.5	8.7	14.7
Crude divorce rate	2.37	1.76	1.65	1.99	1.52	2.25	1.07	1.85
Divorce index	47.7	35.3	34.2	39.8	29.0	47.1	19.9	35.4
Mean age at divorce - males	39.5	36.8	37.7	37.7	37.3	37.7	37.3	38.1
Mean age at divorce - females	37.0	34.4	35.2	35.2	34.8	35.0	35.0	35.5
Mean marriage duration at divorce	12.9	11.6	12.5	12.4	12.1	12.4	11.8	12.6
Divorces with under-age children (%)	66.4	71.0	75.1	67.0	76.9	72.5	73.4	67.7

In Slovakia divorce is very differentiated in regions, which is caused mainly by the different level of religiosity. However at the level of regions, despite many differences are refined, the divorce index in the region of Bratislava is 2.4 times higher than in the region of Prešov.

Similarly as in the case of other phenomena we can see another type of the demographic behaviour in the South of Slovakia and the Western of Slovakia where the second demographic transition has run faster and a

different type in the North and East of Slovakia, where the second demographic transition is running slower with more inertia being deep-rooted in traditional patterns. Regions situated in between of these extreme measures create an intergrade also in the demographic behaviour. The regions with the highest divorce are the following: Bratislava, Banská Bystrica and Nitra (the crude divorce rate is 2.0-2.4, the divorce index 40-48%); regions with the lowest divorce are: Prešov and Žilina (the crude divorce rate 1.0 - 1.5, divorce index

20-28%). The intergrade is formed by the regions of Trnava, Trenčín and Košice having the divorce characteristics at the average Slovak level (Tab. 3.6).

Thanks to Bratislava, the divorce in the region of Bratislava differs from other regions not only by high values but also by nature. The high crude divorce rate is, on the one hand, caused by the fact that in the region of Bratislava the share of inhabitants in the reproduction age is the highest and, on the other hand, the number of divorces of older marriages (often without the underage children) is high. In comparison with other regions, in the region of Bratislava the mean age at divorce is significantly higher, the average duration of marriage is

higher, the share of marriages being under the divorce procedure and having the underage children is lower and also their average number is lower. The region of Bratislava is marked by an unusually high proportion of divorces caused by the "differences in personality, opinion and interest". This cause of divorce was assigned by the court to even 70% cases. In 94% cases married couples agree on the divorce what witnesses the high social acceptance of divorce.

A disagreement of one party involved was more often in the regions of Žilina, Prešov and Trenčín, thus there, where the number of divorces is lower.

<sup>3</sup> See Tab. 1.10

## 4. Natality

Tab. 4.1: Basic characteristics of natality and fertility

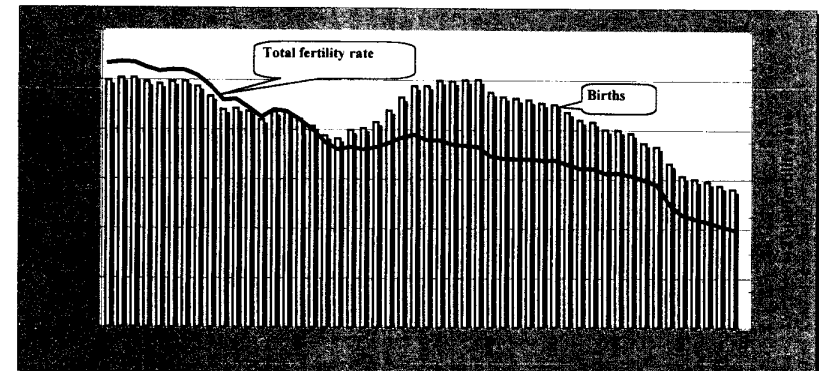
	1985	1990	1993	1994	1995	1996	1997	1998	1999
Births	90 645	80 390	73 583	66 644	61 668	60 363	59 356	57 863	56 482
Live births	90 155	79 989	73 256	66 370	61 427	60 123	59 111	57 582	56 223
Stillbirths	490	401	327	274	241	240	245	281	259
Live births out of wedlock	5 922	6 085	7 729	7 772	7 747	8 430	8 923	8 827	9 480
Live births out of wedlock (%)	6.6	7.6	10.6	11.7	12.6	14.0	15.1	15.3	16.9
Crude birth rate	17.47	15.10	13.76	12.41	11.45	11.19	10.98	10.68	10.42
General fertility rate	71.5	60.2	53.9	47.7	43.7	42.3	41.3	40.0	38.9
Total fertility rate	2.254	2.085	1.932	1.669	1.523	1.470	1.427	1.374	1.329
Mean age of women at birth	24.7	24.7	24.7	24.8	24.9	25.0	25.7	25.8	26.0
Mean age of women at 1 <sup>st</sup> birth	22.2	22.2	22.0	22.1	22.2	22.4	23.1	23.3	23.6
Gross reproduction rate	1.093	1.011	0.937	0.810	0.738	0.713	0.692	0.666	0.645
Net reproduction rate	1.075	0.993	0.915	0.801	0.730	0.700	0.685	0.661	0.641

In the whole Europe the end of forties and the first half of fifties were marked by a compensation increase of natality and fertility after the World War II. The sixties, which are the important boundary for the current population development in advanced countries, brought significant changes also into the development of fertility. The period of a decrease in fertility began which with the less intensity persists practically until nowadays. It is also the period during which the demographic development, and thus also the development of fertility, started to differentiate due to the impact of the political situation. In the Middle and East European Countries the decrease in fertility was interrupted mainly in sixties and seventies by periods of the stagnation or an increase.

Also in Slovakia, the decrease in fertility did not have the same course as in advanced Western European Countries. At the end of fifties it was accelerated by the

adoption of the Law on induced abortion. Furthermore, two other breakpoints occurred – in the beginning of sixties and in the first half of seventies. It was the consequence of the promise and later also of the accomplishment of pro-natality measures (prolonging of the maternity leave, payment of maternity allowances after the end of the maternity leave, increase in family allowances, introduction of the loans for newly married couples, increase in the number of posts in the pre-school facilities). Since half of seventies, the uninterrupted decrease of fertility occurred also in Slovakia, since the end of seventies also the decrease in the number of births (Graph 4.1). Until the end of eighties, Slovakia belonged to countries with the highest fertility in Europe. The causes of this situation have to be investigated, in addition to other causes, also in the social and political development of those days.

Graph 4.1: Births and the total fertility rate



The distinct orientation of a big part of population to a family was not only a consequence of a shift towards traditional values but also the escape of the unfavourable each day reality and one of the only possible forms of realisation. If we add to it the social and housing policy, which were focused on the support of the family with children and a less extensive contraception, we shall get the complex picture on the background of the high fertility in Slovakia. In addition to the high level of fertility, its structure was also remarkable. The period of highest fertility was shifted towards the low age groups. On the other hand, childbirths in the age over 35 were very rare.

The close link between the nuptiality and natality is characteristic for the population development in Slovakia. It can be documented by the development of both processes during the last fifty years, where the fertility reacted to external incentives similarly as nuptiality but with a short delay, as well as by the data on births

according to the time period after the marriage of parents. Until 1990, more than 65% of all children born in wedlock were born until the first year from the date of marriage of parents and no significant changes are observable in this development also nowadays. At the same time, in most of these cases (approximately 70%) the woman was pregnant at the time of marriage.

The fertility reacted to the changed social situation very fast and sharply. The decrease in fertility as well as the number of births was the deepest during 1993-1995 (Tab.4.1). For two years, a decrease in fertility by 21.2% was recorded while, for instance, for the entire eighties, the fertility decreased "only" by 10%. After 1995, the decrease in fertility slowed down. During 1996-1999, the decrease in fertility closely below 10% was recorded. The result of such development is the decrease in the number of live births (by 30% for 1990-1999) despite the high share of women at the age of the highest fertility.

Tab. 4.2: Fertility rates of women by age (per 1000 women)

	1985	1990	1993	1994	1995	1996	1997	1998	1999
15	3.54	2.86	3.73	3.58	3.56	3.47	3.64	3.86	4.00
16	14.26	10.42	12.01	10.55	9.52	9.67	10.99	9.66	10.35
17	34.72	27.36	30.52	24.19	20.49	20.82	20.15	20.58	20.25
18	70.86	69.21	68.34	52.58	44.89	40.95	37.80	35.87	33.84
19	132.13	132.13	127.53	101.49	83.25	75.32	66.83	60.23	56.81
20	187.90	177.06	159.27	131.02	112.95	99.61	89.44	80.36	71.55
21	217.10	201.65	169.98	146.22	128.42	115.87	101.78	92.97	85.94
22	214.70	193.49	177.46	143.99	130.27	121.55	113.19	100.86	93.67
23	208.95	189.77	165.97	144.63	128.12	121.01	116.26	110.03	99.60
24	188.57	174.55	161.43	132.34	123.17	117.89	118.07	112.08	102.17
25	168.26	154.07	143.57	122.34	114.48	113.01	108.54	109.42	105.30
26	144.34	136.08	128.50	109.57	103.79	103.29	106.02	100.09	97.91
27	121.90	115.04	107.85	97.55	89.57	92.48	91.65	89.32	88.81
28	104.11	96.83	86.46	82.32	80.53	79.09	79.24	77.29	83.75
29	85.61	80.61	73.82	66.60	65.22	67.69	66.20	71.72	69.82
30	73.47	66.66	63.91	58.98	56.77	55.22	58.08	58.16	60.27
31	59.53	54.22	54.31	50.66	45.78	47.34	48.39	49.81	49.21
32	49.48	45.61	41.51	40.13	37.83	39.61	39.69	39.25	43.61
33	40.42	36.00	35.60	33.96	32.39	31.76	33.16	34.39	32.68
34	33.17	31.71	29.01	26.89	27.19	26.43	27.41	28.78	28.29
35	27.57	24.74	23.89	21.88	21.65	23.83	23.25	21.64	23.32
36	21.09	17.53	17.63	18.07	16.25	17.40	18.87	19.10	19.01
37	16.62	14.21	15.34	13.80	13.54	14.38	14.80	14.81	14.20
38	12.45	11.02	12.06	11.76	11.11	10.60	11.38	10.83	11.80
39	8.53	8.30	7.42	9.19	7.23	8.27	8.00	7.94	8.22
40	6.29	5.81	5.98	5.62	5.32	5.65	6.16	6.00	5.48
41	3.24	3.34	3.60	3.75	3.94	2.80	3.35	3.43	4.09
42	2.43	2.64	2.86	2.38	2.35	2.23	2.45	2.75	2.54
43	1.39	1.03	1.59	1.54	1.74	1.38	1.05	1.41	1.43
44	0.59	0.70	0.65	0.79	0.71	0.69	0.64	0.52	0.54
TRF	2.254	2.085	1.932	1.669	1.523	1.470	1.427	1.374	1.329

#### Age of mother

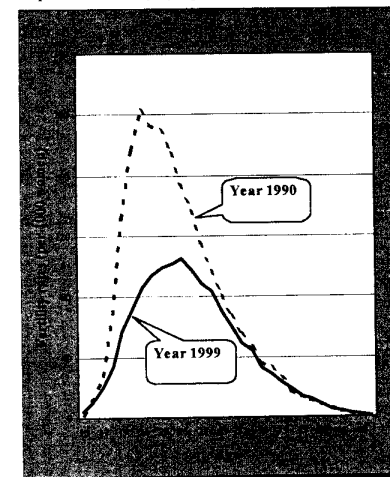
The age significantly influences the fertility of men and women. For men's part of population we can document this fact by concrete data only for men living in marriage because data on the fertility of men are available only for the married men. There is, however, no doubt that this assumption is generally valid for both genders.

In Slovakia until the end of eighties, the time period of the highest fertility (mainly in case of women) was relatively short and shifted towards the beginning of the reproduction period. From the long-term point of view, the fertility of women was the highest at the age of 20-22. In nineties, the situation significantly changed. The sharp decrease in the fertility of women in all relevant age groups from 18 up to 30 years was recorded (Tab. 4.2). Due to the fact that the decrease in fertility was the highest in low age groups, the age of the highest fertility shifted towards the older age. Currently, the highest fertility is at the age of 25 while the distribution of fertility by age has, as compared to the past, a more rounded shape or, in other words, a broader top (Graph 4.2).

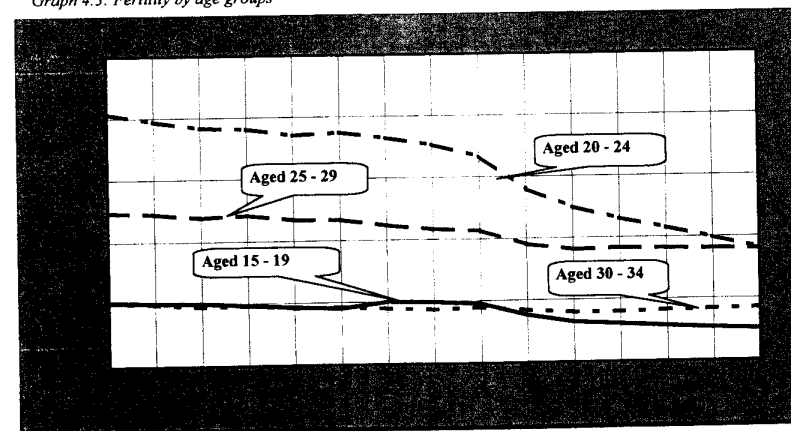
The decrease in fertility in particular age groups was not equally intensive. The highest decrease was recorded in the younger age groups from 18 up to 24 years, which until eighties shared in the total fertility nearly by 60%. For the total fall of fertility, the development in the age group of 20-24 was decisive. In the past, 45% of all births were given by women exactly in this age group. During last 10 years the fertility of women aged 20-24 decreased by more than a half and nowadays it is equal to the fertility in the age group of women aged 25-29 where the decrease was substantially

lower (23%). The shift of fertility to the older age is documented also by the development in the group of women aged 15-19 who, according to the fertility level, reached the fourth place after the women aged 30-34 (Graph 4.3).

Graph 4.2: Fertility by age



Graph 4.3: Fertility by age groups



During the period of the highest decrease of fertility (1993-1995), the fertility of women decreased practically within the entire age scale. While at younger age, the decrease of fertility continued less intensively until nowadays, at the age from 27, the decrease after 1996 ceased or in some cases it changed to an increase. The growth has been recorded yet only at the age 35 and more where, however, the low level of fertility does not influence significantly the number of births.

The entire development of fertility in nineties in the context of a social development witnesses the postponement of births to the older age (Graph 4.4). Despite

it is possible to observe several indications in this direction. This hypothesis must be confirmed by the growth of fertility of women aged 25-34 and it has to be very soon.

Generally speaking, by getting older the decrease of the fertility level diminishes (Graph 4.5). The consequence is the increase in the mean age of woman at birth while the increase is the most significant at first birth. The mean age at birth started to grow only with the fall of fertility in 1993. Until 1999, it grew by 1.33 years (5.4%); at first birth the increase was even higher – 1.61 years (7.3%).

Tab. 4.3: Fertility rates by sex, age and marital status (per 1000 persons)

	1985	1990	1993	1994	1995	1996	1997	1998	1999
<b>Married women</b>									
15-19	573.3	543.2	546.2	520.3	498.9	524.7	512.5	528.8	530.9
20-24	334.1	313.6	277.5	254.5	242.3	238.8	239.9	238.4	233.8
25-29	147.0	140.0	124.0	114.5	110.8	113.8	116.1	119.5	121.3
30-34	57.7	52.2	49.4	46.4	44.3	44.2	45.6	46.9	48.3
35-39	19.2	16.6	16.4	15.7	14.7	15.5	16.0	15.9	16.1
40-44	3.1	3.0	3.3	3.0	2.9	2.6	2.9	2.9	3.0
45-49	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
<b>Unmarried women</b>									
15-19	12.6	11.3	14.0	12.8	12.1	12.2	13.1	12.8	13.4
20-24	23.5	22.6	24.5	25.0	23.1	23.5	22.7	21.3	21.1
25-29	25.2	24.8	30.8	28.2	27.7	28.9	28.3	25.3	27.0
30-34	20.2	17.8	22.6	21.6	20.3	22.2	22.9	21.6	21.5
35-39	12.8	8.8	11.0	10.7	9.5	11.4	11.4	10.1	12.0
40-44	2.0	2.2	2.3	2.4	2.6	2.3	2.2	2.3	2.0
45-49	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.0
<b>Married men</b>									
15-19	724.4	606.6	636.9	607.2	578.3	628.1	601.5	618.8	613.4
20-24	429.3	398.4	357.5	320.0	304.7	302.7	301.8	298.6	298.3
25-29	224.3	216.4	189.4	175.0	166.6	164.6	164.0	166.8	164.3
30-34	91.4	85.9	81.9	77.5	73.4	75.0	77.0	78.5	79.2
35-39	36.2	31.3	29.6	29.0	28.0	29.2	30.0	30.7	31.6
40-44	12.5	10.5	10.6	9.3	9.3	8.7	9.8	9.7	10.1
45-49	4.2	2.8	2.9	2.6	2.2	2.6	2.4	2.4	2.4

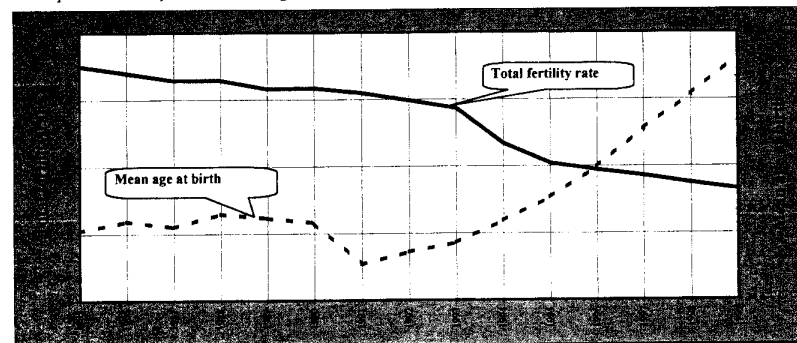
#### Marital Status

The second factor, which together with age, mostly influences the fertility level is the marital status. The share of live births out of wedlock was before 1990 sustainable at the level of 5-6% from the all live births. The growth up to the boundary of 17% during the last 10 years is one of the significant characteristic features of the new model of the reproduction behaviour.

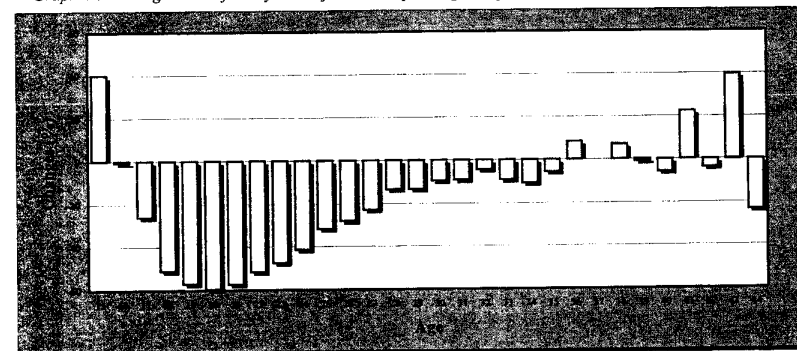
Despite an expressive increase of the number and the share of births out of wedlock (Graph 4.6), the marital fertility remains the decisive component of fertility in Slovakia (Tab.4.3). The decrease in the marital fertility (11% during 1990-1999) accompanied

by the decrease of the number of women living in marriage (1.3% during 1990-1999) contributed, to the greatest extent, to the decrease of the entire fertility level in nineties. During last 10 years, the marital fertility fell in all age groups of women. The sharpest decrease in fertility was recorded by women aged 20-24 (25%), followed by women aged 25-29 (13%) and women aged 30-34 (7%). In other age groups the decrease in marital fertility of women was minimal and having looked at the oscillating course, it can be rather designated as stagnation.

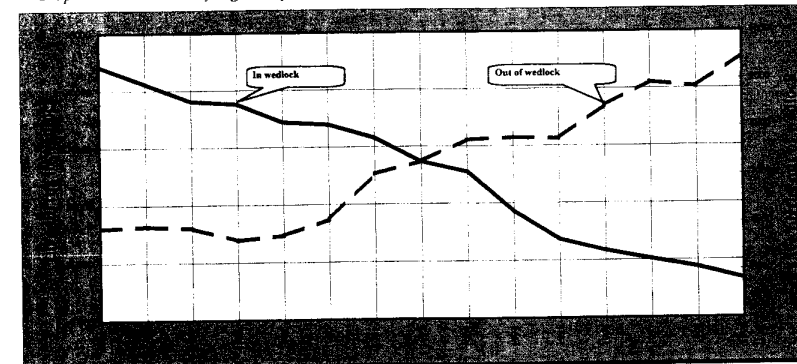
Graph 4.4: Fertility and the mean age at birth



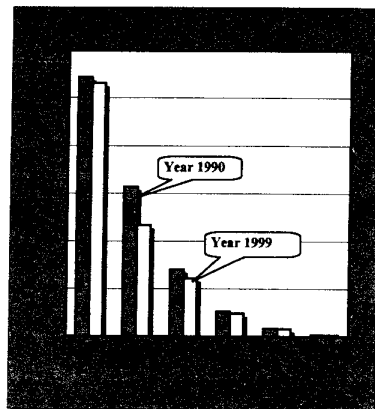
Graph 4.5: Changes in the fertility level of women depending on age (1990-1999)



Graph 4.6: Live births by legitimacy

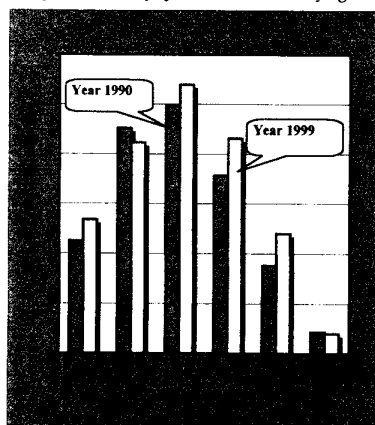


Graph 4.7: Fertility of married women by age



The highest fertility in the group of married women is at the age of 19-24. Other age groups do not reach even the half of the fertility level of this age group (Graph 4.7). The high level of fertility and a sustainable tendency in the youngest age groups witness the continuous close link between the nuptiality and fertility. However, the impact of this age group on the total number of births is declining because due to the increase in the mean age at marriage, the number of married women aged up to 20 is diminishing.

Graph 4.8: Fertility of unmarried women by age

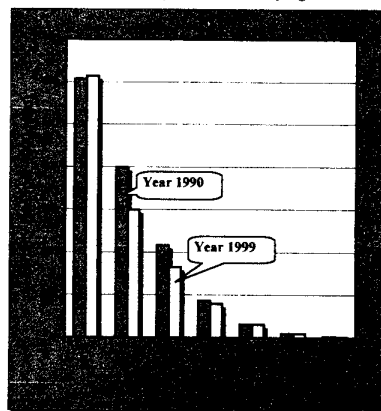


A completely different situation is in case of unmarried women (Tab.4.3, Graph 4.8). First and foremost,

the fertility level is in this group lower than in case of married women (in average, it is nearly 10 times lower). Also the distribution of fertility by age is different. In case of unmarried women, the top of the fertility distribution is shifted to the age group of women aged 25-29 and is not so remarkable as in the case of women living in wedlock. The only relevant age group, from the fertility point of view, which recorded a fall in nineties, was, in case of unmarried women, the age group of women aged 20-24 (fall by 6%). In other age groups until 40, the fertility grew from 9 up to 36%.

The distribution of fertility of married men is very similar to the fertility distribution of married women while the fertility level of men is a little bit higher as in case of women (Tab. 4.3, Graph 4.9). During nineties, the fertility fell in all age groups except for the age of 15-19. In this group the fertility remains the highest and stable with regard to the development in time. Similarly as in case of women, also in case of men the increase in the mean age at marriage and consequently a shortage of married men in younger age categories should be taken into account. Thus, the fall in marital fertility of men by 11.3% was during 1990-1999 caused mainly by a 25% decrease of fertility at the age of 20-29.

Graph 4.9: Fertility of married men by age



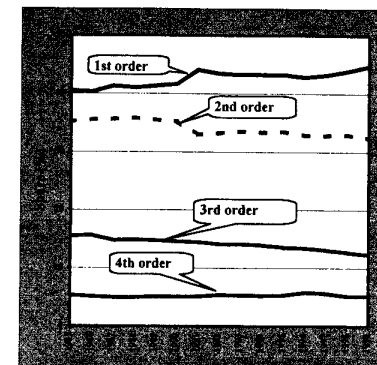
#### The birth order

The structure of births by order very appropriately tells about the intentions of population in the field of reproduction. In Slovakia, in the second half of the twentieth century a model of the family with two children was more and more applied, however, families with more children were not exceptional. The average number of children in family was step-by-step falling. From the end of the post-war compensation growth of natality until the end of eighties, the natality by order had a stable trend. The share of births of the first and second order grew; the share of births of higher order

fell or stagnated. The increase of the share of births of first and second order had during 40 years a very similar course while the difference for the benefit of births of first order was approximately 5 percentage points. This difference diminished only during the period of a higher fertility in the beginning of sixties and seventies. The share of births of the third order recorded a slight drop in sixties, since 1970 until 1990 it can be characterised by stagnation. The decrease in the number of births of the fourth order and higher started in 1958 and undoubtedly was related to the legislative changes regarding the induced abortion. A remarkable decrease in the share of this group in the total number of live births lasted until the half of seventies when it changed to the stagnation.

In nineties, the stagnation of the share of births of the fourth order and higher continued; the share of births of the third order recorded a fall (by 41% during 1990-1999). An important change occurred in the development of births of the first and second order. The heretofore similar development trend in these two groups of births changed in 1990. The share of births of the first order grew approximately by 2 percentage points and the share of births of the second order fell by the same value while this difference is continuously expanding (Graph 4.10). Currently, it is more than twofold as compared to the end of eighties. The situation within the transformation period is thus characterised rather by tending to the one-child family than to the two-children and three-children families. This change in the structure of births by order to a greatest extent contributed to the total decrease of fertility.

Graph 4.10: Live births by order



Out of wedlock, the first births are significantly prevailing (from a long-term standpoint more than 50%). It is certainly a consequence of the lower average number of children born out of wedlock. It is likely that its role has also the fact that many partners decide to marry after the birth of the first child. Changes in the structure of births out of wedlock, however, anticipate that the number of those, who remain in an extra-marital status even after the births of their children, is still increasing (Tab.4.4).

Tab. 4.4: Live births by order and marital status

Poradie	1985	1990	1993	1994	1995	1996	1997	1998	1999
Total									
1	36 487	33 348	31 740	28 757	26 604	25 786	25 559	25 274	25 143
2	31 674	28 146	24 551	22 116	20 582	19 768	19 401	18 961	18 194
3	13 931	11 718	10 350	9 267	8 343	8 108	7 765	7 325	6 926
4	4 815	4 043	3 848	3 478	3 241	3 483	3 325	2 942	2 889
5+	3 248	2 734	2 767	2 752	2 657	2 978	3 061	3 080	3 071
Total	90 155	79 989	73 256	66 370	61 427	60 123	59 111	57 582	56 223
Total (%)									
1	40.5	41.7	43.3	43.3	43.3	42.9	43.2	43.9	44.7
2	35.1	35.2	33.5	33.3	33.5	32.9	32.8	32.9	32.4
3	15.5	14.6	14.1	14.0	13.6	13.5	13.1	12.7	12.3
4	5.3	5.1	5.3	5.2	5.3	5.8	5.6	5.1	5.1
5+	3.6	3.4	3.8	4.1	4.3	5.0	5.2	5.3	5.5
In wedlock									
1	32 800	29 722	27 267	24 376	22 311	21 397	20 970	20 550	20 021
2	30 552	26 945	22 869	20 395	18 907	17 914	17 436	16 972	16 109
3	13 370	11 071	9 510	8 427	7 426	7 013	6 626	6 293	5 827
4	4 537	3 741	3 463	3 059	2 803	2 941	2 744	2 401	2 368
5+	2 974	2 425	2 418	2 341	2 233	2 428	2 412	2 539	2 418
Total	84 233	73 904	65 527	58 598	53 680	51 693	50 188	48 755	46 743

Tab. 4.4: Continuation

Poradie	1985	1990	1993	1994	1995	1996	1997	1998	1999
In wedlock (%)									
1	38.9	40.2	41.6	41.6	41.6	41.4	41.8	42.1	42.8
2	36.3	36.5	34.9	34.8	35.2	34.7	34.7	34.8	34.5
3	15.9	15.0	14.5	14.4	13.8	13.6	13.2	12.9	12.5
4	5.4	5.1	5.3	5.2	5.2	5.7	5.5	4.9	5.1
5+	3.5	3.3	3.7	4.0	4.2	4.7	4.8	5.2	5.2
Out of wedlock									
1	3 687	3 626	4 473	4 381	4 293	4 389	4 589	4 724	5 122
2	1 122	1 201	1 682	1 721	1 675	1 854	1 965	1 989	2 085
3	561	647	840	840	917	1 095	1 139	1 032	1 099
4	278	302	385	419	438	542	581	541	521
5+	274	309	349	411	424	550	649	541	653
Total	5 922	6 085	7 729	7 772	7 747	8 430	8 923	8 827	9 480
Out of wedlock (%)									
1	62.3	59.6	57.9	56.4	55.4	52.1	51.4	53.5	54.0
2	18.9	19.7	21.8	22.1	21.6	22.0	22.0	22.5	22.0
3	9.5	10.6	10.9	10.8	11.8	13.0	12.8	11.7	11.6
4	4.7	5.0	5.0	5.4	5.7	6.4	6.5	6.1	5.5
5+	4.6	5.1	4.5	5.3	5.5	6.5	7.3	6.1	6.9

## Natality by regions

Tab. 4.5: Selected indicators of natality in regions of the SR in 1999

	BL	TA	TC	NI	ZI	BC	PV	KI
Births	4 746	5 167	5 598	6 637	7 809	6 712	10 458	9 355
Live births	4 724	5 152	5 579	6 603	7 787	6 673	10 407	9 298
Live births % (SR=100%)	8.4	9.2	9.9	11.7	13.9	11.9	18.5	16.5
Stillbirths	22	15	19	34	22	39	51	57
Births out of wedlock (%)	18.1	14.4	11.9	16.8	10.0	22.9	15.1	24.1
General fertility rate	26.9	34.5	34.4	34.8	42.5	37.8	50.8	45.5
Mean age of women at 1st birth	25.3	23.4	24.0	23.4	23.6	23.2	23.1	23.1

When comparing the natality and fertility by regions, the division of Slovakia into relatively progressive north and east and a regressive south and west is applicable to a great extent (Tab.4.5). The number of births as well as fertility reach the highest values in the regions of Prešov, Košice and Žilina. Regions of Banská Bystrica, Nitra, Trenčín and Trnava form the second group while the fertility in the region of Banská Bystrica is a little bit higher than the fertility in other three regions of this group. The lowest fertility is in the

region of Bratislava. There are great differences in natality and fertility. The highest fertility is in the region of Prešov. As compared to the region of Bratislava, it is nearly twofold. The differences in the number of live births are even higher; the number of live births in the region of Bratislava generates only 45% of live births in the region of Prešov. The mean age of woman at first birth corresponds to the above-mentioned regional breakdown of fertility.

## 5. Abortion

Tab.5.1: Basic characteristics of abortion

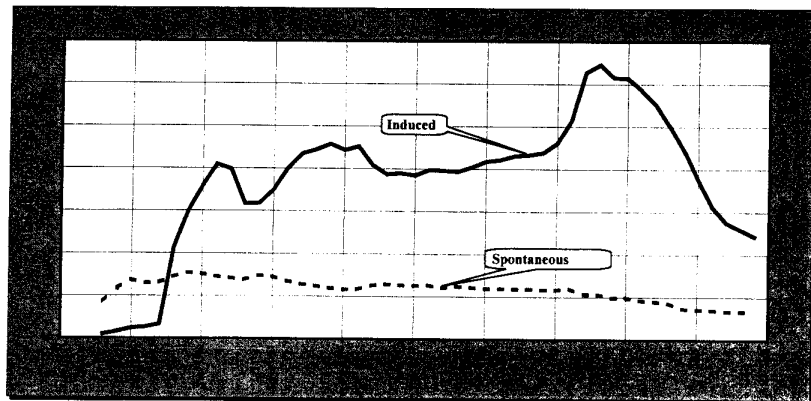
	1985	1990	1993	1994	1995	1996	1997	1998	1999
Total									
Abortions	45 594	56 176	45 552	41 264	35 879	30 885	27 798	26 658	25 557
Crude abortion rate	8.83	10.60	8.55	7.72	6.69	5.75	5.16	4.95	4.74
Abortion index	50.3	69.9	61.9	61.9	58.2	51.2	46.8	46.1	45.2
General abortion rate	36.2	42.3	33.5	29.7	25.5	21.7	19.4	18.5	17.7
Abortion per 100 registered pregnancies	33.5	41.1	38.2	38.2	36.8	33.8	31.9	31.5	31.2
Mean age at abortion	28.65	28.33	28.18	28.01	28.22	28.28	28.29	28.21	28.77
Total abortion rate	1.155	1.426	1.174	1.035	0.895	0.766	0.684	0.652	0.622
Spontaneous									
Abortions	9 311	7 739	6 737	6 381	6 470	5 712	5 480	5 549	5 608
As % of total	20.42	13.78	14.79	15.46	18.03	18.49	19.71	20.82	21.94
Crude abortion rate	1.80	1.46	1.27	1.19	1.21	1.06	1.02	1.03	1.04
Abortion index	10.3	9.6	9.2	9.6	10.5	9.5	9.2	9.6	9.9
General abortion rate	7.4	5.8	5.0	4.6	4.6	4.0	3.8	3.9	3.9
Abortion per 100 registered pregnancies	6.8	5.7	5.7	5.9	6.6	6.3	6.3	6.6	6.8
Mean age at abortion	26.81	26.37	26.41	26.30	26.61	26.81	26.95	26.99	27.14
Total abortion rate	0.233	0.198	0.173	0.146	0.141	0.140	0.134	0.134	0.135
Induced									
Abortions	36 283	48 437	38 815	34 883	29 409	25 173	22 318	21 109	19 949
As % of total	79.58	86.22	85.21	84.54	81.97	81.51	80.29	79.18	78.06
Crude abortion rate	7.03	9.14	7.29	6.52	5.48	4.68	4.15	3.92	3.70
Abortion index	40.0	60.3	52.7	52.3	47.7	41.7	37.6	36.5	35.3
General abortion rate	28.8	36.5	28.5	25.1	20.9	17.7	15.6	14.7	13.8
Abortion per 100 registered pregnancies	26.6	35.5	32.6	32.3	30.1	27.6	25.6	25.0	24.3
Mean age at abortion	29.11	28.64	28.49	28.29	28.52	28.61	28.62	28.53	28.59
Total abortion rate	0.917	1.223	0.996	0.884	0.750	0.623	0.548	0.515	0.487

Even at the beginning of twentieth century, the abortion rates were low in the whole world and nobody paid attention to them. Induced abortions were very exceptional. The cause was held in social and religious norms and in previous centuries it was also the reproduction regime of those days where at high mortality the high number of births was required for the population surviving.

A breakpoint in the development of abortion occurred in Slovakia in 1957 when the possibility of an induced abortion due to social reasons was adopted by the law (until those days, the induced abortion was allowed by the law only due to health reasons). During one year the abortion increased 2.5 times. It was the starting point of the 40-years time period of an increase in abortion, which culminated at the end of eighties (Graph 5.1). During this period the abortion fell only twice – at the beginning of sixties and at the beginning of seventies. The short-term drops were in question

which were caused by a modification in the executive rules of the abortion law (in sixties) and by the pronatal measures (in seventies). The period of an unfavourable trend in abortion ended by a significant increase at the end of eighties after the liberalisation of the abortion law. This fact is better documented by a year-by-year increase of abortion in 1987 by more than 9 thousand, which is an increase by 22.3%. Although Slovakia never belonged among countries with the highest abortion in Europe, the abortion development, mainly its trend, was not favourable. The cause of an unfavourable abortion development was held in a good admissibility of abortions guaranteed by the law and supported by the praxis, their social acceptance as well as the whole social climate suppressing the personal responsibility which reappeared also in the sexual behaviour of population. On the other hand, there was a lack of modern contraception, thus, abortions served as an "additional" contraception.

Graph 5.1: Development of abortion



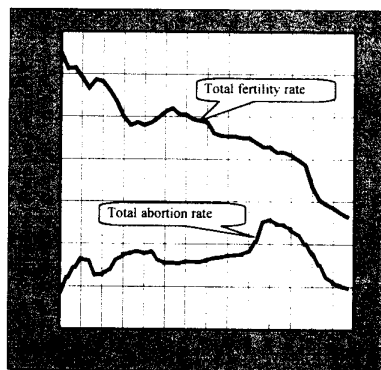
During the whole period of high abortion the induced abortions significantly prevailed over miscarriages. At the end of eighties their share in the total abortions moved closely below the boundary of 90%. Miscarriages and induced abortions are substantially different phenomena, thus, it is necessary to deal with them separately.

Induced abortions represent a complicated social problem, which has its demographic, social, economic, health and moral aspects. Induced abortions under our conditions played for a long time a role of contraception *ex post*, which can be witnessed, in addition to the relatively high level, also by the structure of induced abortions. In 1958, 12000 induced abortions were registered in Slovakia which meant that approximately 13 induced abortions fell on 100 births and from all pregnancies nearly 11% ended unnaturally. If we compare these figures with the year 1988, when the above-mentioned 40-years period of abortion growth culminated, we have to say that the abortion growth was enormous. In 1988, 51000 abortions were registered, 61 abortions fell on 100 births and 35% of pregnancies ended as induced abortions. It can be assumed that thanks to a good admissibility and a general acceptance of abortions by a society, the registration of induced abortions in Slovakia is, except for some special cases, full (as a contrast to many other countries).

Miscarriages have a different background and a completely different course as induced abortions. It is the reflection of the situation in healthcare system and the health conditions of population. In Slovakia, the miscarriages have a significantly lower level than the induced abortions and from the beginning of sixties, they had a slightly decreasing tendency (this trend is undoubtedly related to the development of fertility). It is likely that as a contrast to induced abortions, part of miscarriages is still out of registration. It is very likely that pregnancies ending by a miscarriage during first

days or weeks (provided everything is running without any complications and no surgical intervention is required) are not registered.

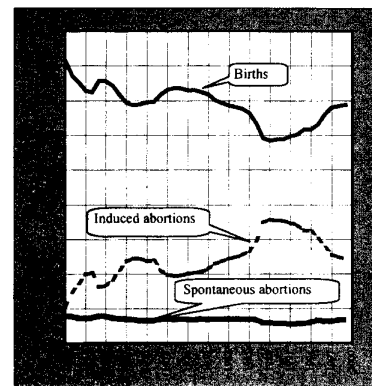
Graph 5.2: Development of fertility and induced abortion



After 1989, the abortion remarkably diminished. For 10 years the number of induced abortions decreased by 60%. Also the decrease in miscarriages was during nineties faster than in the preceding time period. All abortion indicators also sharply diminished. The share of induced abortions in the total number of abortion decreased by approximately 10 percentage points. At the same time, the relation between the development of both fertility and induced abortions changed. The mutual link, which was observable in the past and documented mainly by a „mirrored“ development at the beginning of sixties and seventies, has been replaced by

an independent relation. Currently, both processes have a deeply decreasing tendency. Due to the fact that abortion is falling faster than fertility, also the share of abortions in the total number of registered pregnancies decreases (Graph 5.2). From 100 pregnancies nearly 7 are ended by a miscarriage and approximately 24 by an induced abortion (Graph 5.3). It means that despite a significant decrease in abortion, the situation cannot be evaluated as a favourable. Still nearly one third of pregnancies does not end by childbirth.

Graph 5.3: The structure of registered pregnancies



#### Age

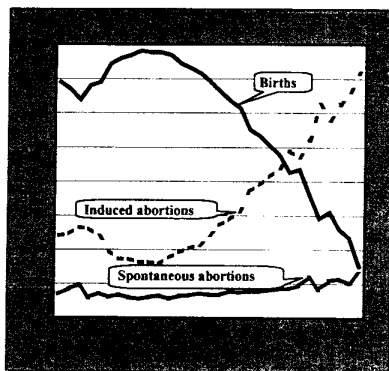
The share of abortions in the total number of registered pregnancies is significantly changing according to age. The intensity of abortion depends also on age (Tab.5.2).

Tab. 5.2: Abortion rates by age (per 1000 women)

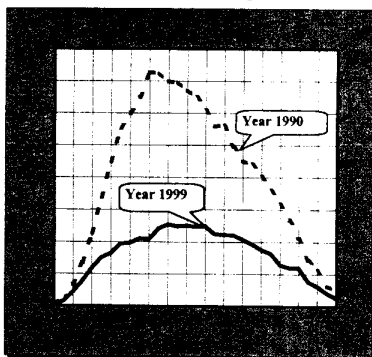
	1985	1990	1993	1994	1995	1996	1997	1998	1999
<b>Induced</b>									
15-19	8.33	14.94	15.12	14.68	11.50	10.17	8.71	8.83	8.22
20-24	37.46	59.58	49.25	41.37	33.28	25.96	23.72	21.78	19.43
25-29	51.04	68.80	54.37	47.87	40.46	32.89	27.97	26.15	24.85
30-34	44.30	53.29	42.38	38.69	34.04	28.85	24.40	23.27	22.46
35-39	30.84	35.89	27.78	25.01	22.12	19.08	17.42	15.99	15.63
40-44	11.41	12.15	10.32	9.23	8.52	7.60	7.32	6.99	6.37
45-49	1.02	0.88	0.98	0.94	0.75	0.63	0.59	0.55	0.47
<b>Spontaneous</b>									
15-19	3.62	4.49	4.20	3.33	3.03	2.79	2.59	2.65	2.44
20-24	15.53	14.06	12.07	9.61	8.94	8.69	7.71	7.63	7.21
25-29	12.53	10.01	8.70	7.88	7.46	7.28	7.53	7.40	7.88
30-34	8.19	6.00	5.11	4.68	4.82	4.96	4.72	4.81	5.21
35-39	4.39	3.45	3.11	2.67	2.76	3.05	2.92	3.09	3.08
40-44	2.08	1.45	1.30	0.93	1.12	1.14	1.15	1.13	1.04
45-49	0.31	0.17	0.19	0.14	0.15	0.12	0.16	0.12	0.13

The strong biological conditionality of the spontaneous abortion appears in its development. Thus, the spontaneous abortion is less sensitive to socio-economic changes. The distribution form of the spontaneous abortion by age is very similar to the distribution of fertility by age (Graph 5.7). In nineties, the decrease was recorded also in case of spontaneous abortion. This was, however, concentrated only on the youngest age

Graph 5.4: The structure of registered pregnancies by age in 1999



Graph 5.5: Induced abortion by age

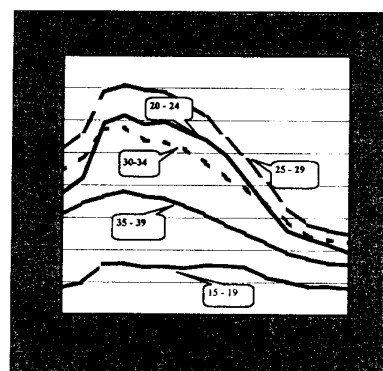


#### Marital status

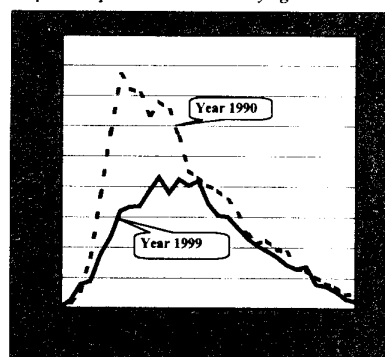
The induced abortion has in case of married and unmarried women a similar course, however, it differs by level. Before 1990, the difference in level of the induced abortion among married and unmarried women was significant. The induced abortion of married women was 1.5 – 2 times higher than in the case of unmarried women; at the age until 19, the difference was even higher. After the decrease of abortion in

groups of 18-27 and caused practically only by the decrease in the number of pregnancies. At the age when the number of pregnancies did not decrease, the spontaneous abortion kept its trend from the past and practically also its level. At the age until 24, the fall of spontaneous abortion reached nearly 50%, at older age, it moved from 10-21%.

Graph 5.6: Spontaneous abortion by age groups



Graph 5.7: Spontaneous abortion by age



nineties, the difference in the level of abortion among married and unmarried women in the decisive age groups diminished approximately by a half (Tab.5.3).

In case of married women aged 20-35 the abortion declined by more than 60%, at the age interval margins the decrease was lower, around 50%. The abortion of unmarried women was less decreasing (40-60%) while the greatest decrease was recorded at the age of 20-29.

#### Number of children

From the distribution of induced abortions by the number of children it is very good observable what function the induced abortions fulfil under our conditions. In Western European advanced countries, the single and divorced women aged until 24, mainly childless, prevail among the applicants for the induced abortion. That means women who have decided not to

have children yet or at all. In our country, the situation is completely different. In Slovakia, the married women aged over 25 with 2 and more children prevail among the applicants for the induced abortion. That means women who do not want to have more children (before 1990, almost 75% of all applicants belonged to this group).

Tab. 5.3: Induced abortion rates by age and marital status (per 1000 women)

	1985	1990	1993	1994	1995	1996	1997	1998	1999
<b>Married women</b>									
15-19	21.5	46.8	1.6	50.8	43.2	40.7	30.2	33.4	24.2
20-24	44.4	76.3	0.4	52.8	43.5	34.8	31.4	29.3	23.8
25-29	55.8	75.6	0.4	51.6	43.0	35.1	30.3	28.7	28.1
30-34	46.4	57.4	0.3	39.4	34.7	30.1	25.3	23.8	22.2
35-39	31.6	37.8	0.2	26.0	22.4	19.7	17.8	16.2	15.6
40-44	11.8	12.4	0.1	9.3	8.8	7.9	7.6	7.2	6.4
45-49	1.1	0.9	0.0	0.8	0.8	0.7	0.6	0.6	0.5
<b>Unmarried women</b>									
15-19	7.4	12.4	12.3	11.9	9.8	9.1	8.2	8.1	7.7
20-24	28.2	38.2	31.9	28.8	22.3	19.4	18.9	17.6	15.9
25-29	33.8	43.4	39.4	35.7	29.0	26.6	21.8	20.5	19.0
30-34	31.3	37.1	32.9	32.1	27.9	23.4	21.0	21.2	19.5
35-39	20.2	25.6	23.6	20.5	18.3	16.4	15.5	15.0	14.3
40-44	9.2	8.8	8.1	6.9	6.8	6.3	5.7	6.3	5.8
45-49	0.8	0.9	0.8	0.7	0.4	0.3	0.4	0.5	0.4

Tab. 5.4: Induced abortions by the number of children and marital status

	1985	1990	1993	1994	1995	1996	1997	1998	1999
<b>All women</b>									
0	4 124	6 070	5 536	5 296	4 578	4 841	4 565	4 719	4 508
1	5 224	8 733	8 117	7 575	6 397	5 571	5 078	4 800	4 716
2	16 223	22 780	17 066	15 067	12 805	10 267	8 627	7 844	7 287
3+	10 712	10 854	8 096	6 945	5 629	4 494	4 048	3 746	3 438
Total	36 283	48 437	38 815	34 883	29 409	25 173	22 318	21 109	19 949
<b>All women (%)</b>									
0	11.4	12.6	14.3	15.2	15.5	19.2	20.5	22.4	22.6
1	14.4	18.0	20.9	21.7	21.8	22.1	22.8	22.7	23.7
2	44.7	47.0	44.0	43.2	43.6	40.8	38.6	37.2	36.5
3+	29.5	22.4	20.8	19.9	19.1	17.9	18.1	17.7	17.2
<b>Married women</b>									
0	219	464	470	410	336	553	516	596	556
1	3 847	6 676	5 959	5 353	4 517	3 901	3 472	3 164	3 137
2	15 307	21 279	15 600	13 614	11 542	9 202	7 568	6 793	6 279
3+	10 109	10 142	7 391	6 327	5 073	4 026	3 546	3 257	2 927
Total	29 482	38 561	29 420	25 704	21 468	17 682	15 102	13 810	12 899
<b>Married women (%)</b>									
0	0.7	1.2	1.6	1.6	1.6	3.1	3.4	4.3	4.3
1	13.1	17.3	20.3	20.8	21.0	22.1	23.0	22.9	24.3
2	51.9	55.2	53.0	53.0	53.8	52.0	50.1	49.2	48.7
3+	34.3	26.3	25.1	24.6	23.6	22.8	23.5	23.5	22.7



Tab. 5.4: Continuation

	1985	1990	1993	1994	1995	1996	1997	1998	1999
Unmarried women									
0	3 905	5 606	5 066	4 886	4 242	4 288	4 049	4 123	3 952
1	1 377	2 057	2 158	2 222	1 880	1 670	1 606	1 636	1 579
2	916	1 501	1 466	1 453	1 263	1 065	1 059	1 051	1 008
3+	603	712	705	618	556	468	502	489	511
Total	6 801	9 876	9 395	9 179	7 941	7 491	7 216	7 299	7 050
Unmarried women (%)									
0	57.4	56.8	53.9	53.3	53.4	57.3	56.1	56.5	56.0
1	20.2	20.8	23.0	24.2	23.7	22.3	22.2	22.4	22.4
2	13.5	15.2	15.6	15.8	15.9	14.2	14.7	14.4	14.3
3+	8.9	7.2	7.5	6.7	7.0	6.2	7.0	6.7	7.3

After 1990, in addition to the decrease of abortion, also changes in its structure occurred. The most powerful group remains the group of women with 2 children and more, however, their share in the total abortions decreased down to 54% in 1999. On the contrary, the share of childless applicants became twofold as compared to 1985.

It is logical, that the situation is in this direction different depending on the marital status. In case of married women, the prevalence of applicants with more children is very significant. Childless women create

nearly 5% from all married applicants for induced abortion (in the past, it was nearly 1% only). The share of women with 2 children and more is still higher than 70% (in the past it was more than 85%).

In case of unmarried women, the structure of induced abortion by the number of children practically has not changed. From the long-term point of view, the share of childless applicants is moving around 55%, applicants with 2 children and more represent approximately a 20% share (Tab. 5.4).

#### Abortion by regions

Tab. 5.5: Selected indicators of abortion by regions of the SR in 1999

	BL	TA	TC	NI	ZI	BC	PV	KI <sup>4</sup>
Total								
Abortions	3 158	2 511	2 585	3 448	2 844	3 704	3 076	4 231
Abortions in % (SR=100%)	12.4	9.8	10.1	13.5	11.1	14.5	12.0	16.6
Abortion index	66.9	48.7	46.3	52.2	36.5	55.5	29.6	45.5
General abortion rate	18.0	16.8	15.9	18.2	15.5	21.0	15.0	20.7
Mean age at abortion	29.2	28.5	29.4	28.3	29.0	28.8	28.6	28.6
Spontaneous								
Abortions	358	422	519	755	795	653	1213	893
Abortions in % (SR=100%)	6.4	7.5	9.3	13.5	14.2	11.6	21.6	15.9
Abortion index	7.6	8.2	9.3	11.4	10.2	9.8	11.7	9.6
General abortion rate	2.0	2.8	3.2	4.0	4.3	3.7	5.9	4.4
Induced								
Abortions	2 800	2 089	2 066	2 693	2 049	3 051	1 863	3 338
Abortions in % (SR=100%)	14.0	10.5	10.4	13.5	10.3	15.3	9.3	16.7
Abortion index	59.3	40.5	37.0	40.8	26.3	45.7	17.9	35.9
General abortion rate	16.0	14.0	12.7	14.2	11.2	17.3	9.1	16.3

From the regional overview the different nature between the induced and spontaneous abortion is even better observable. The high spontaneous abortion is logically concentrated in the areas with high fertility – in the region of Prešov, Košice and Žilina. The spontaneous abortion reaches the peak values in the region of

Prešov, where the level of miscarriages is nearly threefold as compared to the region of Bratislava (lowest values). It is not possible to explain the high level of spontaneous abortion in the region of Prešov only by the high level of fertility.

Regarding the induced abortion at the regional level, it is not possible to characterise explicitly the regions with high induced abortion as it is in case of spontaneous abortion. The degree of urbanisation, socio-economic situation of population and the group of factors, which could be designated as tradition, might be considered as decisive factors, which influence the abor-

tion level in particular regions. The highest induced abortion is in the regions of Banská Bystrica, Košice and Bratislava. Differences between particular regions are remarkable, however, not so high as in the case of spontaneous abortion. The difference between the abortion levels reaches maximum (48%) when comparing the regions of Banská Bystrica and Prešov.

<sup>4</sup> See Tab. 1.10

## 6. Mortality

Tab. 6.1: Basic characteristics of mortality

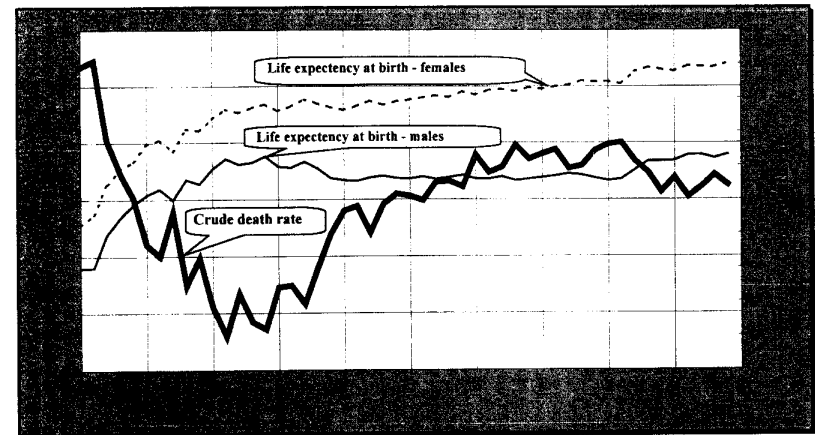
		1985	1990	1993	1994	1995	1996	1997	1998	1999
Deaths	Males	28 613	30 263	28 750	27 662	28 128	27 535	27 788	28 630	28 102
	Females	23 851	24 356	23 957	23 724	24 558	23 701	24 336	24 526	24 300
	Total	52 464	54 619	52 707	51 386	52 686	51 236	52 124	53 156	52 402
Crude death rate		10.16	10.31	9.90	9.61	9.82	9.53	9.68	9.86	9.71
Life expectancy at birth	Males	66.92	66.65	68.35	68.34	68.40	68.88	68.90	68.61	68.95
	Females	74.73	75.43	76.66	76.48	76.33	76.81	76.72	76.70	77.03
Life expectancy at 50	Males	22.13	21.62	22.85	22.71	22.66	22.90	22.98	22.82	22.91
	Females	27.66	28.06	29.02	28.78	28.59	29.04	28.92	28.93	29.14
Life expectancy at 65	Males	12.29	12.22	13.05	12.75	12.69	12.86	12.91	12.76	12.89
	Females	15.36	15.71	16.55	16.23	16.07	16.41	16.37	16.28	16.47
Infant mortality rate		16.32	11.99	10.63	11.19	10.99	10.77	8.70	8.79	8.31

At the beginning of sixties, the SR belonged among countries with a relatively low level of mortality. The crude death rate was oscillating around 8%, life expectancy at birth reached for men the value of 68 years and for women it was around 73 years. It was the result mainly of the inter-war social development and also of the deep decrease of the infant mortality in fifties. Slovakia, within the former Czechoslovakia, belonged to the most advanced European countries.

The post-war development in Europe influenced also the development of mortality. Since the half of sixties, the 25-years period of stagnation or in some

cases also the worsening of mortality started in Slovakia (similarly as in other countries of the Eastern Europe). The high mortality belonged at the end of eighties to the most unfavourable phenomena in the demographic and social development in Slovakia. This fact was confirmed by all demographic indicators – from the slowly decreasing infant mortality, through very high mortality at the medium and older age, mainly in case of men, up to values of a complex indicator being the life expectancy at birth. For instance, in 1964 the life expectancy at birth was for men 68.78 years and in 1989 it was only 66.88 years.

Graph 6.1: Crude death rate and life expectancy at birth



The causes of an unfavourable mortality development are generally valid and the situation in this direction in Slovakia is not exceptional. They can be covered by a term "advancement of the country" in which, in addition to other factors, the level of healthcare system, protection of environment and a life style of population are reflected. Those are all factors, which significantly affect mortality.

The long-term lack of financial resources is one of the main causes of the bad state in which our healthcare system is. On the other hand, it has been quite a long-lasting discussion on the necessity of a complex reform of the healthcare system and on the shift from the area of curing into the area of prevention.

The health condition of population is negatively influenced also by the long-term pollution of all environment components due to taking the precedence of other aspects (mainly economic) over the ecological aspects, which has resulted into an important ecological debt of the society.

In our country, the greatest unfavourable impact on the health condition, and thus also on mortality, has the unhealthy way of life of a big part of population. Mainly the unhealthy nutrition, high consumption of alcohol and cigarettes, vast bulk of work on the one hand and, on the other hand, high unemployment, which are related to many stress situations and the lack of relax in which, moreover, the passive forms prevail, are in question.

The consequence of the above mentioned status is obvious. Slovakia has fallen from the forefront of the European rung among countries with an unfavourable mortality level. Currently, the length of life of men is in average by 7 years shorter than in the advanced countries. For women this difference is smaller – roughly 5 years.

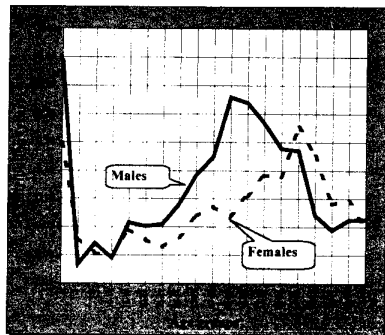
It cannot be expected that the main causes of the high mortality will be removed day-to-day. Moreover, the mortality development is strongly affected by its biological conditionality. Thus, changes in the mortality level are usually long-term and slow. The development of mortality for the last 10 years is therefore a positive finding and is probably mainly the consequence of the growing responsibility of inhabitants for their own health.

#### Life expectancy

The increase in the life expectancy at birth for women continued in nineties more significantly than in eighties, i.e. by 2% for the period of 1990-1999. For men, the stagnation had stopped and the values started to grow, during 1990-1999 by 3%. This faster increase caused that the difference in values of the indicator for men and women was smaller by 0.7 years during the observed time period, i.e. from 8.8 years down to 8.1. Life expectancy at the age of 50 increased during 1990-1999 for men by 6% and for women by 4%. This difference in the acceleration of increase caused only 0.2 years of approaching of indicators in case of men and women, i.e. a change from 6.4 years in 1990 down

to 6.2 in 1999. The life expectancy at the age of 65 was growing roughly by the same tempo for men and women. For the time period of 1990-1999, it was approximately a 5% increase. The difference in values of indicators for men and women slightly increased, i.e. from 3.5 years for 1990 up to 3.6 for 1999.

Graph 6.2: Contribution of age groups to the change of the life expectancy at birth for 1990-1999.



From the age groups standpoint, the greatest positive impact on the increase in the life expectancy at birth for men, during 1990-1999, had the categories of men aged 0 and 40-70 (Graph 6.2). On the contrary, a negative influence had the categories of men aged 1-4 and 10-14, however, it has to be said that their percentage share does not represent a significant part in the number of deaths. For women, the negative impact has not been recorded. The increase was positively affected by the intensity of mainly the following age categories: 0-4 and 50-80. From the above mentioned results the remarkable positive influence of the deaths of children at the first year of life at both genders.

#### Deaths under one year

From the deaths under one year standpoint, the overall decrease can be seen (Tab.6.2). Concretely, for boys, the infant mortality rate decreased during 1990-1999 by 35%. If we divide the number of deaths under one year into the death under 28 days and the death from 28 days to 1 year we shall find out that the neonatal mortality rate has decreased almost by 41%, however, the postneonatal mortality rate only by 19%. For girls these tendencies are characterised by a 25% fall in infant mortality rate while the decrease in neonatal mortality rate is 34% and in the postneonatal mortality rate only 5%.

Also the perinatal mortality rate has developed favourably. For the period of 1990-1999, for boys, the decrease by 34% was recorded; for girls, it was 26%. It results from the deep decrease of deaths under 7 days (Graph 6.3).

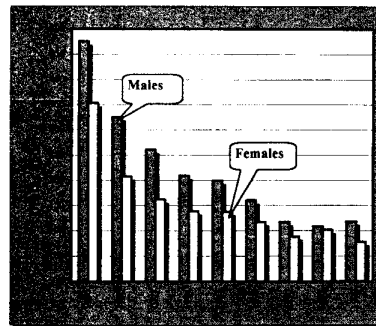
With regard to the fact that part of perinatal mortality rate is formed also by the data on the number of stillbirths, it is convenient at this point to characterise briefly also this indicator. As compared to 1990, the stillbirths fell in case of boys by 13%, for girls it was

only 3%. This different development is the consequence of the stagnation of the number of stillbirths of boys and of the increase in the number of stillbirths of girls during the last three years (Graph 6.4).

Tab. 6.2: Mortality under one year

		1985	1990	1993	1994	1995	1996	1997	1998	1999
Deaths under 1 year	Males	856	568	465	437	388	338	285	278	259
	Females	615	391	314	306	287	277	229	228	208
	Total	1 471	959	779	743	675	615	514	506	467
Deaths under 28 days	Males	580	404	334	293	280	236	186	173	166
	Females	425	265	216	195	203	179	135	137	123
	Total	1 005	669	550	488	483	415	321	310	289
Infant mortality rate	Males	18.53	13.81	12.32	12.90	12.35	10.89	9.38	9.41	9.02
	Females	13.99	10.06	8.84	9.42	9.56	10.62	7.97	8.13	7.56
	Total	16.32	11.99	10.63	11.19	10.99	10.77	8.70	8.79	8.31
Neonatal mortality rate	Males	12.56	9.82	8.85	8.65	8.91	7.60	6.12	5.86	5.78
	Females	9.67	6.82	6.08	6.00	6.76	6.86	4.70	4.89	4.47
	Total	11.15	8.36	7.51	7.35	7.86	7.27	5.43	5.38	5.14
Postneonatal mortality rate	Males	5.98	3.99	3.47	4.25	3.44	3.29	3.26	3.55	3.24
	Females	4.32	3.24	2.76	3.42	2.80	3.76	3.27	3.25	3.09
	Total	5.17	3.63	3.13	3.84	3.13	3.50	3.27	3.40	3.17
Perinatal mortality rate	Males	15.68	12.97	11.34	10.58	10.56	9.11	8.46	8.12	8.53
	Females	13.37	10.19	8.97	8.00	8.10	8.90	6.66	8.87	7.56
	Total	14.55	11.62	10.19	9.32	9.36	9.01	7.58	8.49	8.06
Rate of stillbirths	Males	5.43	5.10	4.46	4.44	4.25	3.98	4.62	4.48	4.44
	Females	5.38	4.87	4.43	3.77	3.55	4.43	3.61	5.25	4.74
	Total	5.41	4.99	4.44	4.11	3.91	4.18	4.13	4.86	4.59

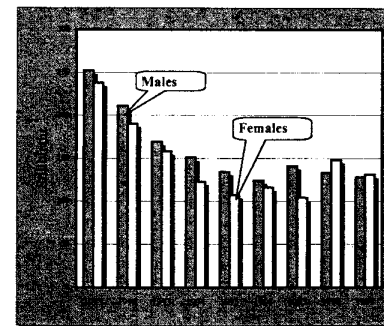
Graph 6.3: Number of deaths under 7 days



#### Age and sex

As far as the death rates per 1000 population during 1990-1999 are concerned, we can see the decrease in all age categories. Of course, when evaluating the development of persons aged 1-14 we have to take into account the small number of deaths at this age. The fall or rise of the indicator in this case has to be put on account of the sensitivity on the small change in absolute data coming into the calculation. The highest

Graph 6.4: Number of stillbirths



decrease in mortality, however, can be recorded, in addition to persons aged 0 about which we have already spoken in the previous part, for the women aged 15-19 by 37% and for men aged 15-19 by 30%. For men aged 20-70 the decrease is 12% up to 26%. For women, also the age category 70-74 years reports the decrease above 10%. Other age categories report the fall being less than 10%.

Tab. 6.3: Death rates by age, males (per 1000 men)

	1985	1990	1993	1994	1995	1996	1997	1998	1999
0	18.81	14.02	12.15	12.33	12.01	10.92	9.44	9.35	8.95
1-4	0.62	0.50	0.47	0.52	0.44	0.54	0.50	0.57	0.50
5-9	0.45	0.31	0.27	0.25	0.31	0.26	0.29	0.29	0.27
10-14	0.33	0.27	0.28	0.29	0.28	0.27	0.31	0.27	0.31
15-19	0.85	0.84	0.75	0.81	0.75	0.65	0.77	0.70	0.59
20-24	1.30	1.31	1.31	1.09	1.10	1.14	1.20	1.20	1.13
25-29	1.47	1.48	1.31	1.30	1.32	1.29	1.25	1.26	1.23
30-34	2.09	2.22	1.74	1.81	1.66	1.59	1.70	1.79	1.67
35-39	3.14	3.44	2.89	2.74	2.74	2.44	2.71	2.69	2.53
40-44	5.31	5.90	5.20	4.85	4.85	4.31	4.58	5.08	4.76
45-49	9.00	9.90	8.35	7.85	7.58	7.44	7.36	7.93	7.34
50-54	14.36	15.71	13.38	12.59	12.63	12.13	12.55	12.23	12.36
55-59	19.42	21.83	19.27	19.25	19.10	18.31	18.40	18.94	18.43
60-64	30.45	32.84	29.35	29.30	29.79	29.10	27.41	28.47	28.75
65-69	41.71	46.38	41.84	42.98	42.33	42.16	41.02	42.11	40.79
70-74	63.15	62.81	61.76	61.91	62.63	63.40	63.23	63.09	60.20
75-79	97.53	94.04	83.70	85.54	88.79	82.60	86.09	89.59	90.02
80-84	147.73	143.25	126.04	135.55	133.29	136.33	130.18	137.36	127.31
85+	231.74	214.80	174.00	207.65	221.12	203.97	206.10	197.80	192.61
Total	11.30	11.68	11.08	10.62	10.77	10.52	10.60	10.91	10.71

Tab. 6.4: Death rates by age, females (per 1000 women)

	1985	1990	1993	1994	1995	1996	1997	1998	1999
0	14.12	10.13	8.64	9.07	9.25	9.44	7.97	8.08	7.53
1-4	0.52	0.50	0.50	0.36	0.44	0.30	0.41	0.56	0.33
5-9	0.26	0.21	0.19	0.18	0.19	0.23	0.22	0.19	0.23
10-14	0.22	0.22	0.18	0.20	0.18	0.17	0.12	0.21	0.20
15-19	0.32	0.37	0.36	0.31	0.30	0.29	0.34	0.31	0.23
20-24	0.39	0.41	0.35	0.35	0.25	0.26	0.33	0.28	0.34
25-29	0.54	0.49	0.45	0.32	0.42	0.29	0.33	0.40	0.39
30-34	0.61	0.68	0.62	0.55	0.66	0.62	0.58	0.64	0.50
35-39	1.28	1.28	1.11	1.13	0.98	0.98	1.06	1.03	0.98
40-44	1.93	1.98	1.69	1.74	1.61	1.56	1.65	1.66	1.50
45-49	3.45	3.16	2.73	2.80	2.58	2.71	2.71	2.56	2.79
50-54	5.20	5.16	4.48	4.32	4.76	4.08	4.58	4.24	4.32
55-59	8.59	8.29	7.67	7.10	7.04	6.75	7.27	6.90	6.77
60-64	12.88	12.56	11.54	12.01	12.20	11.55	11.09	11.13	10.68
65-69	20.99	21.70	19.97	19.32	20.35	19.56	19.24	19.11	18.25
70-74	38.29	34.97	33.50	34.88	34.44	32.25	33.29	31.82	30.56
75-79	65.49	61.91	58.47	57.41	56.71	55.58	55.71	57.33	57.88
80-84	113.23	106.32	94.05	100.27	105.12	99.42	102.01	103.64	95.25
85+	202.29	186.08	161.03	187.05	190.85	182.80	188.78	182.17	180.29
Total	9.07	9.00	8.78	8.65	8.93	8.60	8.81	8.86	8.77

When exploring the excess male mortality by the age structure (Tab. 6.5) we can see the deep decreasing tendency only in case of deaths under one year; the fall from 138% in 1990 down to 119% in 1999. The age structure of persons aged 1-14 reports, however, the increase of this indicator for 1990-1999, but the year by

year development shows an oscillating tendency which is the result of already mentioned small number of deaths in this age category. In other age categories, no significant changes appear, the high excess male mortality still remains, especially in the age categories of men aged 15-74.

Tab. 6.5: Excess male mortality by age groups

	1985	1990	1993	1994	1995	1996	1997	1998	1999
0	133	138	141	136	130	116	118	116	119
1-14	143	119	121	145	132	151	153	123	141
15-29	290	284	283	320	325	362	317	320	304
30-44	274	290	285	272	285	264	272	288	301
45-59	246	283	273	274	269	274	258	281	268
60-74	189	212	203	200	198	208	202	211	214
75+	126	127	122	122	122	123	122	125	125
Total	125	130	126	123	121	122	120	123	122

With regard to the average potential life loss due to death, a great difference between genders appears. In 1999, in case of men it is 151.8 years of loss per 1000 men, for women it represents 102.6 years per 1000 women. This ratio is basically maintained in each observed year. It is the consequence of the above-mentioned high excess male mortality in the age category of 15-64.

From the development point of view, the 9% decrease

of average losses together for both genders, as compared to 1990 and 1999, seems to be positive. The deepest fall is in the age category until 14 years, for men it is by 44% and for women by 43%. In the age category from 15-64, the intensity of fall diminishes down to 8% for men and 11% for women. On the contrary, in the age category of 65 and more, the increase is observable, for men it is by 3% and for women by 4%.

Tab. 6.6: Average potential life loss of men due death (per 1000 men)

	1985	1990	1993	1994	1995	1996	1997	1998	1999
0-14	29.9	19.8	16.9	16.3	14.8	13.5	12.1	11.7	11.0
15-64	94.5	99.6	94.3	89.5	89.3	86.7	89.9	93.0	91.2
65+	43.2	48.0	53.0	48.8	49.9	50.9	51.7	51.5	49.6
Total	167.6	167.4	164.2	154.6	154.0	151.1	153.7	156.2	151.8

Tab. 6.7: Average potential life loss of women due death (per 1000 women)

	1985	1990	1993	1994	1995	1996	1997	1998	1999
0-14	22.8	15.5	12.8	11.9	11.6	10.8	9.5	10.1	8.8
15-64	47.2	46.6	44.3	42.3	41.9	40.5	42.7	41.7	41.6
65+	47.3	50.4	55.4	51.7	53.0	52.7	54.0	52.7	52.2
Total	117.3	112.5	112.5	105.9	106.5	104.0	106.2	104.5	102.6

#### Causes of death

Investigation of mortality differentiated by the causes of death gives an interesting picture. We have selected five important classes of the causes of death, which in 1999 covered 94% and 93% of all deaths for men and women respectively. From the table 6.8 it is obvious, that the concentration of deaths by causes of death is on the circulatory diseases and neoplasms for both genders. From the total of deaths of men in 1999, 48% of men died due to the circulatory system diseases, 25% due to neoplasms, 9% due to the external causes, 6% due to the digestive system diseases and 5% because of the respiratory system diseases. In case of women, almost 62% died due to the circulatory system diseases, due to neoplasms it was 20%, due to the respiratory system diseases 5%, due to the digestive system diseases 4% and due to external causes it was 3%.

Deaths by particular causes of death are (excluding some exceptions) concentrated into the age of 65 and more, while in 1990-1999 this tendency deepened even

more. The exception is formed by deaths due to the external causes in case of men as well as women where the death is concentrated into the age group 15-64. Also this tendency has deepened mainly due to the increase in the number of car accidents the participants of which were persons at this age. Another exception is represented by deaths due to the digestive system diseases in case of men, which occur mainly for men aged 15-64. It is probably mainly the consequence of differences in the style of life between men and women. However, the tendency of diminishing of the share of this age group in the total number of deaths due to digestive system diseases appears.

During 1990-1999, the development of deaths due to neoplasms seems to be very negative. In case of men, it is the increase of 13%, caused by a 26% increase of deaths due to neoplasms of men aged 65 and more. For women, it is the increase of 18%, caused by a 30% increase in deaths of women aged 65 and more. The

deaths due to circulatory system diseases in case of men have a falling tendency, an 8% decrease during 1990-1999. In case of women, however, an increasing tendency appears, i.e. a 5% increase, which is the result of the increase in deaths of women aged 65 and more by 9%. The similar course is to be seen in deaths due to the

digestive system diseases. For women, it is an increase by 4% caused by a rise of deaths at the age of 65 and more by 11%. For men, it is a decrease by 14%. Regarding the causes of death as respiratory system diseases and external causes, the significant falls appear in tendency at both genders.

Tab. 6.8: Deaths by cause and excess male mortality

		1985 <sup>5</sup>	1990 <sup>5</sup>	1993 <sup>5</sup>	1994	1995	1996	1997	1998	1999
Neoplasms	Males	5 567	6 297	6 410	6 367	6 657	6 747	6 683	7 352	7 132
	Females	3 734	4 057	4 306	4 389	4 418	4 394	4 613	4 882	4 803
Excess male mortality		155	162	157	153	159	162	153	159	157
Circulatory system	Males	13 246	14 735	13 637	13 697	13 926	13 475	13 725	14 122	13 553
	Females	13 589	14 393	13 906	14 395	15 097	14 423	14 796	15 607	15 115
Excess male mortality		101	107	103	100	97	98	98	95	95
Respiratory system	Males	3 306	2 195	2 238	1 865	1 890	1 978	1 890	1 357	1 491
	Females	2 475	1 784	1 950	1 621	1 753	1 807	1 857	1 034	1 124
Excess male mortality		139	129	121	121	114	115	107	138	140
Digestive system	Males	1 570	1 960	1 628	1 514	1 484	1 385	1 396	1 621	1 687
	Females	824	915	883	787	775	770	797	852	951
Excess male mortality		198	224	194	203	202	190	185	201	187
External causes	Males	2 544	2 904	2 815	2 582	2 617	2 542	2 709	2 684	2 428
	Females	893	1 037	1 034	1 081	1 025	991	985	665	666
Excess male mortality		296	293	286	251	269	270	290	426	385
Other causes	Males	2 380	2 172	2 022	1 637	1 554	1 408	1 385	1 494	1 811
	Females	2 336	2 170	1 878	1 451	1 490	1 316	1 288	1 486	1 641
Excess male mortality		106	105	113	119	110	113	113	106	117

Tab. 6.9: Deaths by cause and by main age groups for 1990 and 1999, males

	1990						1999					
	0-14		15-64		65+		0-14		15-64		65+	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Neoplasms	45	0.7	2 998	47.6	3 254	51.7	31	0.4	3 010	42.2	4 091	57.4
Circulatory system	8	0.1	4 370	29.7	10 357	70.3	10	0.1	3 489	25.7	10 054	74.2
Respiratory system	102	4.6	571	26.0	1 522	69.3	37	2.5	339	22.7	1 115	74.8
Digestive system	17	0.9	1 307	66.7	636	32.4	5	0.3	1 082	64.1	600	35.6
External causes	104	3.6	2 203	75.9	597	20.6	88	3.6	1 923	79.2	417	17.2

Tab. 6.10: Deaths by cause and by main age groups for 1990 and 1999, females

	1990						1999					
	0-14		15-64		65+		0-14		15-64		65+	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Neoplasms	23	0.6	1 652	40.7	2 382	58.7	24	0.5	1 692	35.2	3 087	64.3
Circulatory system	10	0.1	1 756	12.2	12 627	87.7	5	0.0	1 341	8.9	13 769	91.1
Respiratory system	88	4.9	192	10.8	1 504	84.3	26	2.3	116	10.3	982	87.4
Digestive system	11	1.2	394	43.1	510	55.7	9	0.9	375	39.4	567	59.6
External causes	75	7.2	433	41.8	529	51.0	45	6.8	373	56.0	248	37.2

<sup>5</sup> According to the International Statistical Classification of Diseases and Related Health Problems, the 9th revision, others according to 10th revision

From the excess male mortality standpoint the causes of death seem to be as follows. The highest excess male mortality is due to external causes of death; in 1999 it was almost 385 points. It is the result of a high share of deaths due to traffic accidents at which mainly men are dying. This tendency is even deepening, for 1990-1999 it increased by 32%. Regarding the respiratory system diseases the increasing tendency in the excess male mortality appears but this is affected by a faster decrease in deaths due to this cause for women

(37%) than for men (32%). The next causes of death show the decreasing tendency of the excess male mortality, i.e. neoplasms by 3%, circulatory system diseases by 11% and digestive system diseases by 16%. The excess female mortality due to circulatory system diseases has to be pointed out. It is a consequence of the increase in the number of dead women by 5% during 1990-1999 against the decrease in the number of dead men by 8% during the same time period.

#### Mortality by regions

Tab. 6.11: Selected indicators of mortality by regions of the SR in 1999

	BL	TA	TC	NI	ZI	BC	PV	KJ <sup>6</sup>
Males								
Deaths	2 873	2 976	3 123	4 283	3 527	3 893	3 531	3 896
Deaths in % (SR = 100%)	10.2	10.6	11.1	15.2	12.5	13.8	12.6	13.9
Standardised death rate	9.14	11.04	10.07	11.48	10.89	11.54	10.14	11.22
Infant mortality rate	6.67	3.84	7.69	7.53	8.66	6.58	10.23	15.71
Females								
Deaths	2 798	2 580	2 574	3 825	2 843	3 383	3 004	3 293
Deaths in % (SR = 100%)	11.5	10.6	10.6	15.7	11.7	13.9	12.4	13.6
Standardised death rate	8.37	9.14	8.15	9.13	8.45	9.08	8.67	9.04
Infant mortality rate	3.87	7.06	5.52	6.09	4.80	6.61	11.51	10.46

In 1999, from the regional point of view, the worst mortality of men (measured by a standardised death rate) is in the region of Banská Bystrica, although by the share in the total number of dead men of the SR, this region is at the third place. The regions of Nitra and Košice, which, regarding the number of deaths, are at first two positions, follow it. On the contrary, the lowest mortality of men is in the region of Bratislava and Trenčín.

The mortality of women seems to be worst in the region of Trnava as this region is even at the seventh place with regard to its share in the total number of dead women of the SR. The regions of Nitra and Banská Bystrica follow it. The lowest mortality is in the region of Trenčín where also the share of the dead women is the lowest.

As far as the infant mortality rate of boys is concerned, the regions of Košice and Prešov significantly prevail over other regions. On the contrary, the remarkably lowest infant mortality rate is in the region of Trnava.

For girls, similarly as for boys, the highest infant mortality rate is in the regions of Prešov and Košice. On the contrary, the lowest infant mortality rate is in the regions of Bratislava and Žilina.

<sup>6</sup> See Tab.1.10

## 7. Migration

Generally speaking, migration becomes a more important factor of the population development than it used to be in the past. In advanced countries with the continuously falling natural increase the net migration becomes each time a more significant component of the total increase of the population.

In eighties, the migration of population of the SR showed certain features of a relative stability and inertia. The intensity of the external migration was low and the migration losses of the population of the SR for the benefit of the CR were relatively stable. The short distances migration, especially from municipality to municipality within the same district, was increasing.

The migration was considered as a concentrated one to which the centrally planned economy contributed to a great extent.

At the turn of eighties and nineties, the situation in the migration of population started to change radically. The existing migration tendencies were broken. The new socio-economic situation brought significant changes not only into the external migration but also into the internal migration of population. Changes occurred also in the character and intensity of migration between the SR and the CR, which, after the split of the common state at the turn of 1992 and 1993, changed from the internal into an external one.

### Migration across the border of the Slovak Republic

Tab. 7.1. Migration across the border of the Slovak Republic

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Migration across the border excluding the CR										
Immigrants	944	1 752	2 106	1 874	1 778	1 558	1 484	1 436	1 275	1 216
Emigrants*	867	527	128	79	59	105	133	360	495	410
Net migration	77	1 225	1 978	1 795	1 719	1 453	1 351	1 076	780	826
Migration with the CR										
Immigrants	7 674	7 324	6 823	7 232	3 144	1 497	993	867	777	856
Emigrants*	10 073	8 334	11 740	7 276	95	108	89	212	251	208
Net migration	-2 399	-1 010	-4 917	-44	3 049	1 389	904	655	526	628
Total										
Immigrants	8 618	9 076	8 929	9 106	4 922	3 055	2 477	2 303	2 052	2 072
Emigrants*	10 940	8 861	11 868	7 355	154	213	222	572	746	618
Net migration	-2 322	215	-2 939	1 751	4 768	2 842	2 255	1 731	1 306	1 454
Estimation of migration between the CR and the SR **										
Immigrants	x	x	x	x	3 144	1 497	993	867	777	856
Emigrants	x	x	x	x	4 076	3 845	3 450	3 088	2 887	3 235
Net migration	x	x	x	x	-932	-2 348	-2 457	-2 221	-2 110	-2 379

\* Incomplete registration

\*\* Immigrants from the CR - according to the Statistical Office of the SR, emigrants from the SR - according to the Czech Statistical Office

By external migration (without the CR), the SR lost in average 163 persons annually in eighties. The level of the annual external migration was influenced also by the fact that the non-recorded, so called illegal, emigration was not taken into account. According to additionally published data, the illegal emigration in the SR was oscillating in the range of 1200-1500 persons annually.

At the beginning of nineties when by the removing of the "iron curtain" the field for the external migration of population was opened, the Slovak Republic recorded the surplus from the external migration without the CR. The increase of population from this migration reached in 1991 approximately 1.2 thousand persons and 2.0 thousand persons in 1992. However, the number of immigrants could be affected by a re-emigration of persons who formally applied for a permanent residence due to the claims stated by the law on the property

restitution. In the following years the surplus from the external migration less the CR continuously diminished, a slight turn occurred only in 1999. According to the data of the Statistical Office of the SR, the SR gained 9 thousand people by this type of migration during 1993-1999.

The migration between the SR and the CR, which is currently an external migration, represented during the period of a common state a significant move of inhabitants. During the overall period of the statistical survey on the internal migration of population until the end of 1993 the turnover of the inter-republic migration represented approximately 1133 thousand persons. Except for 1954, the SR was always losing in this migration. The CR gained from it by approximately 240 thousand people.

In eighties, the SR had lost for the surplus of the CR in average approximately 3.5 thousand people annually, with the highest decrease being 4.1 thousand people in 1986. Since then, the migration surplus of the CR continuously diminished and in 1989 it reached only 2.7 thousand people, which was the minimum for the period of eighties.

In 1990 and 1991, the decrease in surplus from migration of the CR continued, but the migration turnover was higher, approximately 17.7 thousand persons and 15.6 thousand persons respectively. The preparation of the split of the common state evoked further increase of the migration turnover up to approximately 18.5 thousand people in 1992. The higher mutual exchange of migrants between both republics occurred. At the same time, the decrease of population for the benefit of the CR was the highest since 1968. It reached the level of 4917 persons. Consequently, after the split of the CSFR, the migration turnover decreased in 1993 down to 14.5 thousand persons although the migration flow from the CR was even higher than in 1992. The migration benefit of the CR reached, according to the data of the SOSR, only 44 persons and was the lowest in the heretofore history of the mutual migration survey. According to the data of the Statistical Office of the SR, after 1993 a breakpoint in the mutual migration between the CR and the SR occurred. The SR started to record surplus also from this type of migration. Since the split of the common state, 15 366 persons moved from the CR to the SR and 8239 from the SR to the CR. The SR gained 7107 persons from this move.

However, when comparing the number of emigrants from the SR with the statistics of the target countries we shall find out that the surveys on external migration register only part of emigrants. Obviously, not all citizens cancelled their permanent residence when

moving from the SR, which is also true for foreigners with a permanent residence in our territory. Thus, we can make only estimates of the actual move by using data on immigrants to the target country from the SR, which can be demonstrated also following the example of the migration between the CR and the SR.

When using data from the Czech Statistical Office on the immigrants to the CR from the SR, the CR would be still profitable from the mutual migration. The difference between data from the Statistical Office of the SR and the Czech Statistical Office in 1999 was in case of emigrants from the SR to the CR more than 3000 persons. At the same time, the Czech Statistical Office presents that, e.g. in 1994 there were only 56 emigrants to the SR and in the following years this number oscillated within the range of 140-356 persons (Tab. 7.1).

Regarding the above-mentioned facts we can say that data on emigrants are distorted in such a way that they are not suitable for further analysis. Thus, we shall hereinafter deal only with the analysis of immigrants.

From the regional point of view, the migrants from Europe are prevailing among the immigrants to the SR. Their share, however, is continuously decreasing. While in 1993, the immigrants from Europe represented even 94.4%, in 1999 their share declined to 82.8%, i.e. by nearly 12 points. In the situation of the decreasing total number of immigrants to the SR, the share of immigrants from Asia is still increasing; in 1999, their share in the total number of immigrants to the SR was almost 8% (in 1993, it was only 2.2%) and so they exceeded for the first time in history the share of immigrants from America (6.1%). The immigrants from Africa represent around 2% from the total number of immigrants (Tab. 7.2).

Tab. 7.2: Number and the structure of immigrants by continents

	1993		1994		1997		1998		1999	
	Number	%	Number	%	Number	%	Number	%	Number	%
Total	9 106	100.0	4 922	100.0	2 303	100.0	2 052	100.0	2 072	100.0
of which:										
Europe	8 457	92.9	4 467	90.8	1 964	85.3	1 709	83.3	1 716	82.8
America	227	2.5	192	3.9	141	6.1	137	6.7	127	6.1
Africa	30	0.3	48	1.0	29	1.3	25	1.2	37	1.8
Asia	193	2.1	149	3.0	133	5.8	133	6.5	163	7.9
Australia and Oceania	49	0.5	63	1.3	36	1.6	46	2.2	18	0.9

The main source country of the external migration is still the CR, however, according to the data of the Statistical Office of the SR, the number of immigrants from the CR reaches only 12% of its value from 1993. While the share of the CR in the total number of immigrants of the SR was 80% in 1993, until 1999 it decreased by a half. In addition to the CR, Ukraine, Yugoslavia, Germany and Russia maintain a quite significant position in the statistics of immigrants to the SR (Tab. 7.3).

At the same time, the shares of immigrants from the USA and Austria decreased and in 1999 they reached only 53% or 48% respectively from the value of 1993. Men contribute to the number of immigrants to a greater extent, they represent in average around 53% from all immigrants. The immigrants to the SR positively influence the age structure of population because mainly the people aged 25-29 are moving; recently these persons have represented around 40% of immigrants. In the structure of immigrants, however, there is a shift in age

by sex – the highest number of women coming into the SR is aged 20-34, the highest number of men immigrating to the SR is aged 30-34. The immigrants in the

productive age form approximately 80% of all immigrants, which might be considered as an indicator of the beginning of an economic migration.

Tab. 7.3: Main source countries of the external migration (number of immigrants)

	1993		1994		1997		1998		1999	
	Number	Order	Number	Order	Number	Order	Number	Order	Number	Order
Czech Republic	7 232	1.	3 144	1.	867	1.	777	1.	856	1.
Ukraine	295	2.	388	2.	363	2.	268	2.	180	2.
Yugoslavia	183	3.	131	3.	84	3.	87	5.	110	3.
Germany	183	4.	128	4.	93	3.	93	3.	100	4.
Russia	116	6.	115	5.	92	4.	91	4.	86	5.
Poland	46	13.	41	15.	29	15.	29	14.	71	6.
Canada	94	8.	103	6.	86	5.	74	6.	59	7.
USA	107	7.	68	9.	39	12.	45	11.	57	8.
Bulgaria	45	14.	52	12.	43	11.	56	8.	56	9.
Austria	80	9.	90	7.	51	9.	39	12.	39	10.

A characteristic feature of migration after the split of the common state was so-called return migration, which faded away even in 1996. It means that in the structure of immigrants the persons having the Slovak citizenship prevailed. In 1996, they represented almost 60% of all immigrants. Since 1997, the situation has radically changed. Migrants coming into the SR have mostly the Czech and Austrian citizenships but also Russian citizenship. Within the immigrants having the Czech citizenship, during the last three years men are slightly prevailing, in case of immigrants having the Austrian citizenship, women significantly prevail. The share of immigrants with the Slovak citizenship does not reach 3%. The highest numbers of immigrants with the Czech, Austrian and Russian citizenships are coming to the SR from the CR.

The Statistical Office of the SR registers only that part of the external migration, which is defined as a change of permanent residence of persons and is recorded according to the applications for the permanent residence. From the international move of persons standpoint, the most important data are currently data on

foreigners who live on the territory of the SR based on the permission for a long-term residence, especially for the purposes of an employment. The *long-term residence* is permitted in the SR at maximum for one year and can be prolonged, however, always by one year as the longest prolongation. This kind of residence is bound by purpose – e.g. employment, study, training and medical treatment, or in order to maintain the family relations. The foreigner can live in the territory of the SR also on the basis of permission for the permanent residence. The *permanent residence* may be permitted to the foreigner in order to the family reunion or in such cases, which are considered as a foreign-political interest of the SR.

These kinds of stay, as well as applications for the residence permit in the territory of the SR, are registered and approved by The Border and Alien Department of the Presidium of the Police Corps of the SR. According to data, which were released, in 1998 more than 6 thousand of foreigners received the residence permits of which 75% had the permission for the long-term residence (Tab. 7.4).

Tab. 7.4: Foreigners with the permanent residence permits and the long-term residence permits in the SR

	1993	1994	1995	1996	1997	1998
Long-term residence	5 713	4 073	3 022	3 250	2 673	4 734
Permanent residence	1 030	2 392	2 225	1 348	1 700	1 628
Total	6 743	6 465	5 247	4 598	4 373	6 362
Total per 1000 population	1.27	1.21	0.98	0.86	0.81	1.18

The number of foreigners having the permanent residence permits and long-term permits in the SR was the highest in 1993, afterwards it decreased and the most remarkable increase occurred again in 1998 (Graph 7.1). In 1998, 6362 persons had the residence permit, i.e. approximately 0.1% of the Slovak population, which was, as compared to the CR, a negligible share (in the CR in 1996, nearly 200 000 foreigners had the permanent residence permit or the long-term permit

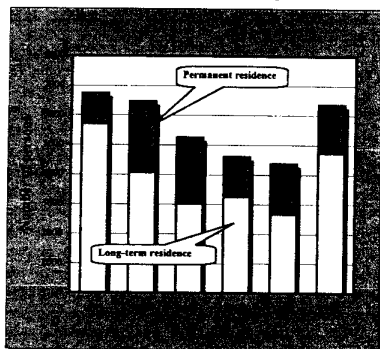
– their share in the population of the CR was around 2%).

Another category of foreigners who legally live in the territory of the SR, are refugees and applicants for the refugee status. *Refugees* are foreigners being entitled with the refugee status by the Ministry of Interior of the SR. This status is approved when the foreigner, in the country where he/she has the permanent residence, has a grounded fear from being persecuted due to racial,

national or religious reasons or because he/she is presenting certain political opinions or because he/she is the member of a particular social group and due to this fear he/she cannot or does not want to return back to his/her country. By being entitled as a refugee, the foreigner reaches the permanent residence on the territory of the SR and has the same status as the citizen of the SR except for the right to vote and military duty. The persons with the permanent residence on the territory of the SR can apply for the appointment of Slovak citizenship.

The Migration office of the SR deals with problems related to refugees from the application for the approval on the refugee status until their integration to the society.

Graph 7.1: Foreigners with the permanent residence permit and long-term residence permits in the SR



#### Internal migration

Tab. 7.6: Internal migration of the population

	1985	1990	1993	1994	1995	1996	1997	1998	1999
Migrants	113 004	109 956	97 072	94 637	78 466	80 188	82 513	84 513	78 965
Migrants per 1000 population	21.9	20.8	18.3	17.7	14.6	14.9	15.3	15.7	14.6

The statistics on internal migration of population in the Slovak Republic covers each change of municipality of the permanent residence of people within the territory of the SR regardless the fact whether he/she is the Slovak citizen or the foreigner who has the permanent residence permit in the territory of Slovakia. A part of the internal migration is also the move between the urban parts of Bratislava and Košice.

In nineties, the volume of the internal migration in the SR developed unevenly. It is reflected in waves – by a decrease in the number of migrants until 1995, a consequent slight increase until 1998 and by another decrease in 1999. As far as the volume of migrants is concerned, women are prevailing and their share is continuously slightly increasing.

For the period from the beginning of 1992 until the end of 1998, from the total number of 2248 applicants for asylum, the 455 foreigners were entitled by a refugee status (20% from all cases) mainly from Afghanistan, Iraq, Romania, Armenia, and from the countries of the former Yugoslavia. 39 persons were appointed by a Slovak citizenship. Until the end of April 2000, further 1871 persons applied for asylum and 34 persons were entitled by a refugee status.

A special status among immigrants has the displaced persons. Those persons, being of the Slovak origin from the Chernobyl area of Ukraine applied for the displacement to the SR. From 2400 applicants, 1900 persons complied with the conditions for displacement; they had to be displaced until 1999. The displaced persons get the permanent residence permit in the territory of the SR and have the same legal status as Slovak citizens except for the right to vote and military duty.

Since September 1992 until the end of June 1997, a group of leavers lived in the territory of the SR – approximately 2400 citizens from the former Yugoslavia to whom the Slovak Republic offered a temporary shelter during the war conflict. Since 5th May until the end of 1999, the SR offered a temporary shelter to 500 refugees from Kosovo. The refugees who could not return back to their country after this time period expired, were allowed to stay in the SR for a longer time according to the law on refugees or the law on the stay of foreigners in our territory.

Tab. 7.5: Foreigners who were entitled by a refugee status

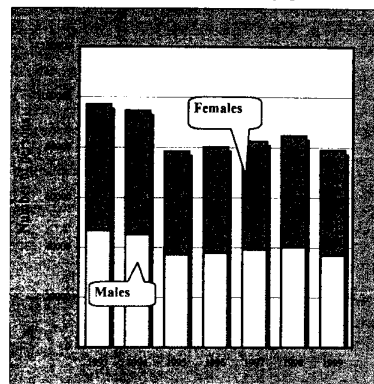
	1993	1994	1995	1996	1997	1998
Number of persons	38	54	66	128	65	51

As compared to eighties, in nineties the migration mobility of the population in the territory of the SR significantly decreased. In 1999, 1.5% of inhabitants changed their permanent residence while in the half of eighties, 2% of inhabitants moved within the SR.

In eighties, the targets of migration flows were relatively stable, the migration basically reflected the distribution of economic and social activities in the SR and, thus, it showed some feature of concentration. The development of internal migration was more significantly influenced mainly by the realisation of dwellings construction and since the second half of seventies also by the central settlements system which reinforced the growth of selected larger municipalities (as settlement centres), while the development of the small municipali-

ties was restricted, especially by blocking their construction of dwellings. The inhabitants moved mainly into the centres of districts or to the closest central municipalities. That was how the short distance migration – from municipality to municipality within the same district – has step by step grown. According to the territorial and administrative arrangement of those days, this kind of migration represented around 53% of the internal migration volume in the SR.

Graph 7.2: Internal migration of the population



The greatest migration flows were directed mainly into the economically attractive areas with intensive dwelling construction. Such places were, for instance, the capital of Slovakia – Bratislava and the metropolis of the East Slovakia – Košice, which belonged among most dynamically growing towns of the Central Europe. It is documented also by their growth during the inter-census time period 1980-1991 when the number of inhabitants of each of them increased approximately by 16%. The migration contributed to the growth of Bratislava approximately by two thirds and to the expansion of Košice roughly by two fifths. Towns attracted the population not only from the closest but also from apart surroundings mainly by the opportunities of new jobs which were conditioned by the localisation of industry, cumulating of functions of the regional, and in case of Bratislava of the national, significance. In eighties the average annual migration increase reached in Bratislava 4.1 thousand persons and in Košice 1.5 thousand persons, which means the increase by approximately 10 or 7 persons respectively per 1000 inhabitants. This migration surplus improved the age structure of population because the most numerous age groups of immigrants were groups of people aged 20-34 and children aged 0-4. Regarding to the structure of immigrants by sex, women were prevailing over men by which the unevenness in the representation of genders increased even more.

In addition to Bratislava and Košice, the migration surplus was concentrated basically into four regions (Banská Bystrica, Považská Bystrica, Martin, Veľký Krtíš) and the rest of the territory (i.e. 32 districts according to the territorial breakdown of those days) recorded migration losses.

The remarkable losses in population occurred mainly in the hinterland of Košice and Bratislava because the sharply growing towns were draining inhabitants from the hinterland and worsening its age structure. Literally, the depopulation of hinterland occurred in the district of Košice-vidiek, which was losing by migration annually in average almost 885 inhabitants. It means 9.0‰ in the term of a crude rate. In the district of Bratislava-vidiek the losses were smaller, in average 430 persons, i.e. 2.9‰. At the same time, around 60% of immigrants from the district of Bratislava-vidiek headed for the city of Bratislava; they contributed to the number of immigrants to the city of Bratislava roughly by 20%. The similar situation was in the district of Košice-vidiek from which also nearly 60% of immigrants headed for the city of Košice. These people contributed to the total number of immigrants of Košice even by more than 30%. Thus, the unused housing stock and a deformed age structure together with the high share of people in the post-productive age remained in the hinterland.

The high losses were also in those districts in which the population did not find appropriate jobs. In this districts the periodical commuting often changed to migration, especially when there was a possibility to receive an apartment. This is true mainly in case of the inhabitants of the former district of Čadca, which were to a great extent working in Ostravsko. Almost 20% of immigrants from this district headed for the region of North Moravia.

By cancelling the central planning, the directions of migration substantially changed in nineties. It means a breakpoint in the long-lasting net migration not only for longer distances but the migration relations between towns and their hinterland changed as well.

As a contrast to the situation in eighties when the inhabitants were headed from the hinterland for the centre, in nineties the concentration tendencies in the migration of the population started to change into de-concentrated and greater flows of inhabitants started to head from cities for the country. The inhabitants started to use, to a greater extent, not only the existing housing stock in the hinterland but the decisive part of the private housing construction is directed also behind the borders of towns. And thus, the small municipalities in the hinterland of towns, which in eighties recorded losses, are currently, from the migration standpoint, profitable. On the contrary, the big towns are loss making due to migration. For instance, in 1991 Bratislava profited from migration with its hinterland but since 1992 it was the district of Bratislava-country, which profited from the mutual migration.

According to the new territorial and administrative organisation, the greatest migration flows from Brati-



slava are routed to the neighbour districts of the region of Bratislava and to the closest districts of the region of Trnava. For instance, in 1998 almost 1471 inhabitants moved from Bratislava to the districts of Malacky, Pezinok and Senec, in 1999 there were 1262 inhabitants, which represented in both cases approximately 1/3 of emigrants from Bratislava to the rest of Slovakia. In 1998, 954 inhabitants moved from Bratislava to the districts of Dunajská Streda, Galanta, and Trnava and in 1999, 784 inhabitants were in question (approximately 1/5 of emigrants from Bratislava to other parts of the SR). It means that more than a half (54%) of emigrants from Bratislava headed for these six districts. Conversely, 1038 people in 1998 and 853 people in 1999 headed for Bratislava. These districts gained 1084 or 1193 persons respectively from the mutual migration.

A similar development of migration has the city of Košice. The low migration increase of population in 1991 was replaced in 1992 by a migration loss. On the contrary, the migration loss in the district of Košicevidiek had significantly diminished since the beginning

of nineties and in 1993 it changed into an increase of population from migration.

Regarding the changes in the territorial and administrative arrangement of the SR we can evaluate regional trends within the internal migration only from 1996 (Tab.7.7).

Currently, the cities of Bratislava and Košice belong among places with the highest crude rate of the population loss by an internal migration in the SR. Conversely, districts of their broader hinterland – Malacky, Senec, Pezinok, Galanta, Dunajská Streda but also Košice-okolie belong among districts with the highest rate of increase of population by migration. Districts in the territory of Bratislava and Košice are districts with the specific demographic structure and processes and the migration behaviour of the population of these "urban" districts has also different features in comparison to the migration behaviour of the population of other districts. In the regional structure, it is meaningful to evaluate the big town as a whole and its relationship to the hinterland. Thus, we do not draw our attention to districts in the territory of Bratislava and Košice.

Tab. 7.7: Migration between districts

	Net migration					Net migration per 1000 population				
	1996	1997	1998	1999	1997-1999	1996	1997	1998	1999	1997-1999
Districts with the highest net migration per 1000 population										
Malacky	232	364	431	276	1 303	3.69	5.77	6.78	4.33	5.15
Senec	98	165	260	254	777	1.95	3.28	5.15	5.02	3.85
Košice-okolie	489	316	498	271	1 574	4.79	3.07	4.80	2.60	3.81
Pezinok	56	183	217	260	716	1.05	3.42	4.04	4.82	3.34
Banská Štiavnica	-23	96	96	45	214	-1.35	5.65	5.67	2.64	3.15
Galanta	191	398	325	241	1 155	2.03	4.23	3.44	2.54	3.06
Turčianske Teplice	-2	-19	89	132	200	-0.12	-1.13	5.32	7.86	2.98
Dunajská Streda	121	244	355	247	967	1.09	2.19	3.17	2.20	2.16
Skalica	151	58	86	57	352	3.23	1.24	1.82	1.21	1.87
Zvolen	85	84	261	-1	429	1.25	1.24	3.83	-0.01	1.58
Districts with the lowest net migration per 1000 population										
Medzilaborce	-71	-20	-1	-38	-130	-3.50	-1.56	-0.08	-2.98	-2.53
Tvrdošín	-93	-60	-71	-102	-326	-2.73	-1.75	-2.06	-2.94	-2.37
Gelnica	-193	-5	-41	-42	-281	-6.44	-0.17	-1.36	-1.39	-2.33
Košice	-207	-298	-969	-647	-2 121	-0.86	-1.23	-4.00	-2.68	-2.19
Humenné	-77	-91	-232	-141	-541	-1.18	-1.40	-3.56	-2.16	-2.08
Svidník	-102	-66	-50	-46	-264	-3.07	-1.98	-1.50	-1.38	-1.98
Sobrance	-94	-35	-42	17	-154	-3.99	-1.49	-1.80	0.73	-1.65
Sabinov	-104	-47	-92	-83	-326	-2.00	-0.90	-1.74	-1.56	-1.55
Kysucké Nové Mesto	-117	-69	-4	-9	-199	-3.53	-2.08	-0.12	-0.27	-1.50
Bratislava	207	-669	-1 318	-834	-2 614	0.46	-1.48	-2.93	-1.86	-1.45

Generally speaking, the situation at the level of other districts is even more blurring. The biggest obstacle of the growth of the territorial mobility of the population of the SR is the undeveloped market with dwellings. The development of internal migration in the SR does not confirm the thesis that the population should move from territorial units with the higher unemployment

and a low number of available jobs into territories with more favourable conditions.

With regard to the short time series, no general conclusions are to be made even at the level of regions. The permanent surpluses from the internal migration are observable only in the region of Trnava and Nitra, permanent losses in regions of Trenčín, Žilina, Prešov

and Košice. The strongest migration links are between neighbour regions (Tab. 7.8).

The overall situation in the internal migration can be truthfully characterised by volumes of population migration by type of migration (Tab. 7.9). However, due to changes in the territorial and administrative organisation in nineties, the volumes of migrants by particular types are incomparable. Aside the migration between municipalities and districts, also the migration between regions was traced until the end of 1991. In 1992-1995, data were processed also at the level of regions, which corresponded to the previous regions. Since 1996, data on migration according to the new territorial and administrative organisation are available for 8 regions and 79 districts, of which 9 districts are situated in the territory of Bratislava and Košice. Moreover, during 1991-1996 the migration statistics was gradually covering also the migration between city parts and city districts of Bratislava and Košice, which should also have the impact on the volume of migration. Migration between municipalities is to a certain extent distorted also by the process of

disintegration of municipalities, which was the strongest during 1990-1991 and is fading out today.

However, certain tendencies are observable. During the whole observed time period, the highest share in the migration of population of the SR had the short distance migration – from municipality to municipality within one district although recently this share is not achieving the half of the total volume. The increase of the number of territorial units according to the new territorial and administrative organisation has influenced the volume of migration by type as well. In some cases the migration between municipalities within one district has been changed to the migration between districts and a part of migration between districts within one region has been changed to migration between regions. For the last four years, the particular types of migration report certain stability. The borders of region are crossed by nearly 1/4 of migrants, borders of district approximately by 1/3 of migrants. Around 44% of migrants are moving from municipality to municipality and annually this share slightly increases.

Tab. 7.8: Migration between regions of the SR (excluding the external migration)

	BL	TA	TC	NI	ZI	BC	PV	KI <sup>1</sup>
1997								
Immigrants	3 459	3 032	2 099	3 005	1 546	2 047	1 828	2 104
Emigrants	3 416	2 453	2 126	2 461	2 011	2 221	2 240	2 192
Net migration	43	579	-27	544	-465	-174	-412	-88
Net migration per 1000 population	0.07	1.05	-0.04	0.76	-0.68	-0.26	-0.53	-0.12
1998								
Immigrants	3 406	3 467	1 924	3 196	1 614	2 396	1 733	1 969
Emigrants	3 816	2 427	2 267	2 546	1 990	2 061	2 325	2 273
Net migration	-410	1040	-343	650	-376	335	-592	-304
Net migration per 1000 population	-0.66	1.89	-0.56	0.91	-0.54	0.50	-0.76	-0.40
1999								
Immigrants	3 241	3 012	1 649	2 894	1 590	1 945	1 833	2 028
Emigrants	3 285	2 162	2 045	2 263	1 775	2 019	2 370	2 273
Net migration	-44	850	-396	631	-185	-74	-537	-245
Net migration per 1000 population	-0.07	1.54	-0.65	0.88	-0.27	-0.11	-0.69	-0.32

Tab. 7.9: Volume and structure of internal migration (thousand persons)

	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Volume of internal migration of the SR	113.0	109.9	101.6	103.7	97.1	94.4	78.4	80.2	82.5	84.8	79.0
Of which:											
Between regions in the SR	20.1	18.2	17.0	16.1	15.5	14.1	14.1	19.1	19.1	19.7	18.2
in %	17.8	16.6	16.7	15.5	16.0	17.1	18.0	23.8	23.2	23.2	23.0
Between districts within a region	34.6	31.8	28.6	43.0	41.9	41.5	22.2	27.1	27.6	27.8	25.1
in %	30.6	28.9	28.1	41.5	43.2	44.0	28.3	33.8	33.5	32.8	31.8
Between municipalities within a district	58.3	59.9	56.0	60.7	55.2	52.9	42.1	34.0	35.8	37.3	35.7
in %	51.6	54.5	55.1	58.5	56.8	56.0	53.7	42.4	43.4	44.0	45.2

<sup>1</sup> See Tab. I.10

## 8. Increase and the number of population

Tab. 8.1: Increase and the number of population

		1985	1990	1993	1994	1995	1996	1997	1998	1999
Natural increase	Males	17 576	10 867	9 002	6 213	3 287	3 510	2 580	913	608
	Females	20 115	14 503	11 547	8 771	5 454	5 377	4 407	3 513	3 213
	Total	37 691	25 370	20 549	14 984	8 741	8 887	6 987	4 426	3 821
Net migration	Males	-1 831	-1 449	815	2 641	1 524	1 212	991	774	826
	Females	-1 461	-873	936	2 127	1 318	1 043	740	532	628
	Total	-3 292	-2 322	1 751	4 768	2 842	2 255	1 731	1 306	1 454
Total increase	Males	15 745	9 418	9 817	8 854	4 811	4 722	3 571	1 687	1 434
	Females	18 654	13 630	12 483	10 898	6 772	6 420	5 147	4 045	3 841
	Total	34 399	23 048	22 300	19 752	11 583	11 142	8 718	5 732	5 275
Mid-year population	Males	2 531 431	2 590 571	2 594 672	2 604 994	2 612 229	2 616 334	2 620 329	2 623 086	2 624 080
	Females	2 630 358	2 707 203	2 729 960	2 742 419	2 751 447	2 757 459	2 762 904	2 767 780	2 771 244
	Total	5 161 789	5 297 774	5 324 632	5 347 413	5 363 676	5 373 793	5 383 233	5 390 866	5 395 324
Population on 31 December	Males	2 539 291	2 595 913	2 600 047	2 608 901	2 613 712	2 618 434	2 622 005	2 623 692	2 625 126
	Females	2 639 676	2 714 798	2 736 408	2 747 306	2 754 078	2 760 498	2 765 645	2 769 690	2 773 531
	Total	5 178 967	5 310 711	5 336 455	5 356 207	5 367 790	5 378 932	5 387 650	5 393 382	5 398 657
Natural increase per 1000 population	Males	6.94	4.19	3.47	2.39	1.26	1.34	0.98	0.35	0.23
	Females	7.65	5.36	4.23	3.20	1.98	1.95	1.6	1.27	1.16
	Total	7.30	4.79	3.86	2.80	1.63	1.65	1.3	0.82	0.71
Net migration per 1000 population	Males	-0.72	-0.56	0.31	1.01	0.58	0.46	0.38	0.3	0.31
	Females	-0.56	-0.32	0.34	0.78	0.48	0.38	0.27	0.19	0.23
	Total	-0.64	-0.44	0.33	0.89	0.53	0.42	0.32	0.24	0.27
Total increase per 1000 population	Males	6.22	3.64	3.78	3.40	1.84	1.8	1.36	0.64	0.55
	Females	7.09	5.03	4.57	3.97	2.46	2.33	1.86	1.46	1.39
	Total	6.66	4.35	4.19	3.69	2.16	2.07	1.62	1.06	0.98

Changes in the number of population are the result of ongoing reproduction processes in the population (natality, mortality) and the migration. The increase in the number of population of the SR started to slowdown in eighties and this tendency is currently even more deepening. Aside the stagnating mortality (9.9 – 10.3‰), the development of live births which, measured by crude rate, reached at the end of eighties 15.2‰, contributed mainly to the fall of the overall increase of population. Thus, until 1989 the natural increase fell down to 5‰. The losses of population by external migration reached in average 163 persons annually. The migration losses with the CR were very high, in average 3.5 thousand persons annually. The total increase of population diminished from 44.5 thousand people in 1980 down to 23.4 thousand people in 1989, which meant, according to the crude rate, a decline from 7.9‰ to 4.4‰.

At the end of eighties and at the beginning of nineties, a breakpoint occurred in the development of demographic indicators of the SR. The net reproduction rate fell under the survival value and the number of born children rapidly diminished. At the mortality oscillating

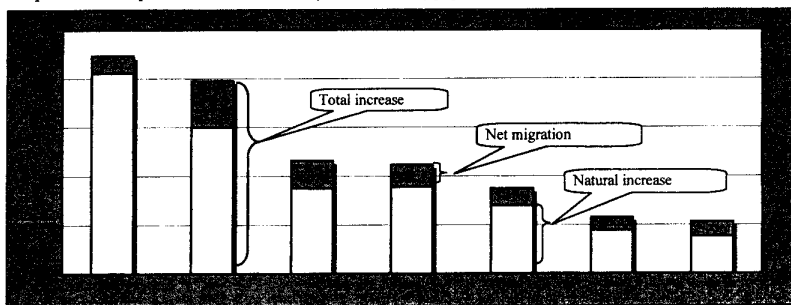
around 52 thousand persons annually, the deep fall of the natural increase occurred. In 1995 it was a fall down to 1/3 and in 1999 to a 15% of its value from 1990 (Tab. 8.1).

A peculiarity in the population development in the SR is, from a long-term standpoint, a high share of women in the natural increase. In 1999 this share reached even 84.1%. Such a development, caused mainly by the high excess male mortality, deepens the femininity of population in the SR.

According to the data of the Statistical Office of the SR from the beginning of an independent state, the SR is profitable from migration. The migration losses were recorded only at the beginning of nineties, from the migration with the CR mainly at the split of a common state. In case of the falling natural increase, the share of net migration balance in total increase is growing. While in 1993 the migration increase represented only around 8%, in 1999 it was more than ¼ of the total increase of population.

The total increase, thus, reached in 1999 only 5.3 thousand persons, which means the increase nearly one person per 1000 inhabitants only (Graph 8.1).

Graph 8.1: Development and the structure of the increase of population in the SR



Since the split of the Czech and Slovak Federative Republic (1 January 1993) until the end of 1999, the number of population of the SR increased by 84.5 thousand persons, i.e. by 1.6%, which is an increase in average by 12.2 thousand persons annually. As of 31 December 1999, 5398.7 thousand inhabitants were living in the territory of the Slovak Republic.

For comparison, from the census in 1991 until the end of 1999, the total increase reached approximately 142.4 thousand persons, i.e. 13.8 thousand persons annually. On the contrary, the average annual increase during the inter-census period 1980-1991 reached 28.3 thousand persons and within the inter-census period 1970-1980 it was even 45.4 thousand persons. As a contrast to many European countries, the Slovak Republic is still a country where the number of population is increasing, although very moderately.

The evaluation of the regional differentiation of increases in the population depends on the available data sources. Despite the fact that according to the current regional and administrative arrangement only data since 1996 are available, certain inertia of a long-term development trends can be observed also nowadays.

The greatest natural increase of the population is traditionally in the East Slovakia (except for districts with high mortality – Medzilaborce, Sobrance and Rožňava) and in some districts in the North Slovakia (Námestovo, Tvrdošín). The permanent natural increases are observable in the districts of Prešov, Košice and Žilina. The current natural increase in the region of Prešov is at the level of the Slovak average from the end of eighties. On the contrary, the natural losses are concentrated in the West and South of Slovakia, in the regions of Bratislava, Nitra and Banská Bystrica to which the regions of Trnava and Trenčín can gradually be allocated.

In the development of migration<sup>8</sup>, the previous tendencies were broken. The relatively high losses of population caused by migration, typical for Eastern Slova-

kia in the last decades, persist only in the region of Prešov, while in the region of Košice, the development is fluctuating. The permanent losses are in the regions of Nitra and Žilina and, except for 1997, also in the region of Trenčín. The permanent increases due to migration are observable in the regions of Trnava and Banská Bystrica. Except for 1998, also the region of Bratislava is profitable due to migration.

During the observed time period, the number of population increased in the regions of Trnava, Žilina, Košice and most significantly, despite the migration losses, in the region of Prešov. In other regions the overall shortage of population occurs (Tab. 8.2).

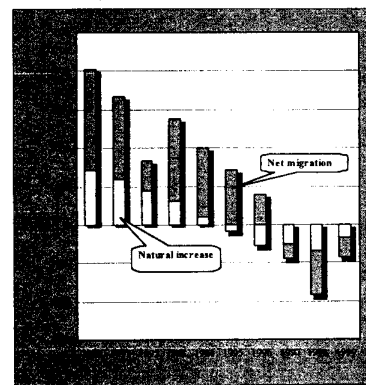
The balance of the movement of population of Slovak large towns also records remarkable changes (Graph 8.2, Graph 8.3). While in eighties, the cities of Bratislava and Košice belonged to the cities growing in the fastest way in the Central Europe; currently the number of population in both cities is declining, in Bratislava since 1997 and in Košice since 1998. The shortage in the number of population in Bratislava is due to the natural loss of population, especially a very low level of live births (in 1999, only 3240 live births were registered in Bratislava which is 6.4 children per 1000 population). The level of the natural increase in Bratislava in eighties was the lowest in the SR, afterwards it diminished even more and since 1995 it changed into a loss. Despite relatively high increase of population due to the external migration, since 1997 Bratislava has reported the overall migration losses. Since the end of 1996, the number of population of Bratislava declined by 4.0 thousand persons.

Also in the city of Košice, the gradual, but slow, decline of the natural increase occurs. In 1999, it reached still 2.35‰. The net migration has, however, turned around even earlier than in Bratislava. The city of Košice has been generating losses due to migration since 1993 (except for 1995) as the compensation of losses by an external migration is much more weaker as in Bratislava. The migration losses during last years are so high that the natural increase cannot cover these losses and the overall shortage in the population occurs.

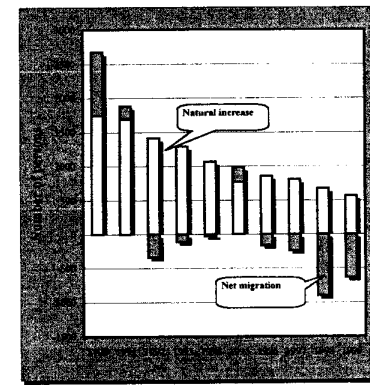
Tab. 8.2: Increase and the number of population in the regions of the SR in 1999

	BL	TA	TC	NI	ZI	BC	PV	KI <sup>9</sup>
Natural increase	-947	-404	-118	-1 505	1 417	-603	3 872	2 109
Net migration	330	1 039	-333	786	-36	43	-296	-79
Total increase	-617	635	-451	-719	1 381	-560	3 576	2 030
Mid-year population	617 029	551 028	609 411	716 006	691 930	663 047	782 721	764 152
Population on 31 December	616 982	551 287	609 288	715 841	692 582	662 932	784 451	765 294
Natural increase per 1000 population	-1.53	-0.73	-0.19	-2.10	2.05	-0.91	4.95	2.76
Net migration per 1000 population	0.53	1.89	-0.55	1.10	-0.05	0.06	-0.38	-0.10
Total increase per 1000 population	-1.00	1.15	-0.74	-1.00	2.00	-0.84	4.57	2.66

Graph 8.2: Development and the structure of increases in population in Bratislava



Graph 8.3: Development and the structure of losses of population in Košice



<sup>9</sup> See Tab. 1.10

<sup>8</sup> The territorial distribution of increases or losses from the internal and external migration is in question.

## 9. International comparison

Tab 9.1: Basic demographic characteristics in the selected countries in 1990 and 1998

	SR	CR	Hungary	Poland	Austria	EU 15
1990						
Ageing index	41.4	59.4	64.5	39.4	86.9	84.8
Mean age of women at 1st marriage	x	21.4	21.5	22.7	25.1	25.3
Divorce index	21.9	35.2	37.5	16.6	36.0	27.8
Total fertility rate	2.1	1.9	1.8	2.0	1.5	1.6
Mean age of women at 1st birth	22.1	22.5	22.5	23	26.1	x
Life expectancy at birth - males	66.7	67.5	65.1	66.5	72.5	72.8
Life expectancy at birth - females	75.5	76.0	73.8	75.6	79.0	79.4
Infant mortality rate	12	10.8	14.9	16.0	7.8	7.6
Natural increase per 1000 population	4.8	0.1	-2.0	4.1	1.0	1.8
Net migration per 1000 population	-0.4	0.1	0.0	-0.0	1.6	2.8
1998						
Ageing index	55.4	80.6	84.1	58.4	90.9	93.0
Mean age of women at 1st marriage	22.5	25.8	24.0	23.4	26.7	26.5
Divorce index	33.9	58.8	57.4	21.6	45.7	36.1
Total fertility rate	1.4	1.2	1.3	1.6	1.3	1.5
Mean age of women at 1st birth	23.3	24.4	24.5	23.9	26.1	x
Life expectancy at birth - males	68.6	71.1	66.1	68.9	74.8	74.6
Life expectancy at birth - females	76.7	78.1	75.2	77.3	80.9	80.9
Infant mortality rate	8.8	5.2	9.7	9.5	4.9	5.2
Natural increase per 1000 population	0.8	-1.8	-4.3	0.5	0.4	0.8
Net migration per 1000 population	0.2	0.9	0	-0.3	0.6	1.2

The demographic development of each country is in some sense an indicator of changes, which are being carried out within its economic, political and social development. Moreover, the population development is affected also by other factors, which were the result of changes in previous conditions or changes in the biosocial basis of the demographic reproduction process.

The current demographic situation in Europe is the result of a long-term historical development. Europe belongs among those world areas in which the demographic development has made a significant progress.

The population development in the Slovak Republic is closely related to the population development of the whole Europe, in which, with only negligible exceptions (e.g. Albania and Turkey), the process of the demographic revolution has been finished. In the West, North and Central parts of Europe it was done practically before the World War II, in other parts of Europe, immediately after the World War II.

In the post-war population development in Slovakia, within the framework of the former Czechoslovakia, as well as in other former socialist countries of Central Europe, two significant milestones existed. It was the period of the second half of sixties when the remarkable differences in the population development

between the countries of Western Europe and the so-called East Block started to be visible and the period at the beginning of nineties when the demographic development in the post-communist countries sharply reacted to the political and social changes.

The demographic development after the World War II was in whole Europe roughly the same and its most significant feature was the post-war compensation. The mortality decreased and the nuptiality and natality increased. This period lasted until the half of sixties. In the second half of sixties the period of deep changes in the reproduction behaviour started in Western Europe. The nuptiality and natality decreased, the forms of cohabitation changed, the number of children born outside marriage increased, the divorce grew. The decrease in mortality was ongoing and the length of human life was prolonging.

In the former East Block countries such significant changes did not occur. Rather the opposite was true, the development from the post-war period reinforced even more. The nuptiality and natality were still increasing, the mortality stagnated and in some age categories, mainly of men, it was even increasing. The orientation to the traditional family was moreover reflected also in a lower share of children born outside marriage. The 40-

years isolation of the East Block countries appeared also in the population development. The result was a different way of the reproduction behaviour of population, which had a consequence also in the greater unevenness in the age structure.

The transformation period after the change in the political system was in all post-communist countries characterised also by changes in the reproduction behaviour of population. The changes in nuptiality and fertility are more significant than changes in other characteristics at which the inertia and/or several non-demographic factors were to a greater extent observable. The demographic trends are in all transition countries of the Central Europe similar; the characteristic feature is the diminishing of differences in the demographic development between particular countries.

#### Age structure of population

The age structure of population of the Slovak Republic is due to the previous development uneven. The unevenness is best visible from its graphical presentation in the age pyramid. Not too calm 20<sup>th</sup> century significantly influenced the population development of the majority of European countries and considerably deformed their age structure. The consequences of both war conflicts from the first half of the century and the economic crisis of thirties, where the lower numbers of live births were reflected also in the lower numbers of persons living nowadays, can be seen from the age pyramids.

As compared to the age structure of the population of the European Union countries (EU 15), the age structure of the Slovak population is in several time periods more uneven, although the similar contours are to be found in a certain part of the age pyramid. The shapes of pyramid for persons born before 1930 are similar but the low natality in the period of the World War I at both genders has also a similar form. The period of seventies is different as the increase of the natality and fertility levels occurred in Slovakia. It was caused not only by the compensation of the previous low level of fertility but also by the fact that the numerous population age groups of women entered the age of the highest fertility and, furthermore, due to the pronatality government policy, several pro-natality economic measures were adopted. By the decrease in fertility during the last twenty years, the basis of the age pyramid sharply narrows which indicates a new unevenness in the age structure of the Slovak population for the future.

The ageing of population is a problem not only of Slovakia but also of the whole Europe, although in West European countries it is more remarkable than in our country. By the fact that the length of life of population of these countries is longer, the share of the population at older age is in these countries higher. The highest share of population aged 65 and more (in 1998) was in

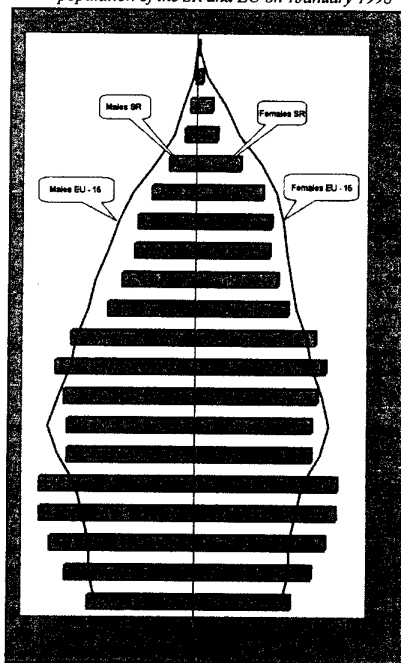
Sweden and Italy - in both countries 17.4%, then in Greece - 16.9% and in Belgium - 16.6%. In the Slovak Republic is the share of this age group one of the lowest in Europe - 11.3%.

Due to the fact that the natality was in majority of West European countries during eighties and nineties lower as compared to Slovakia, the children component in their population is represented by a lower share as in the Slovak Republic.

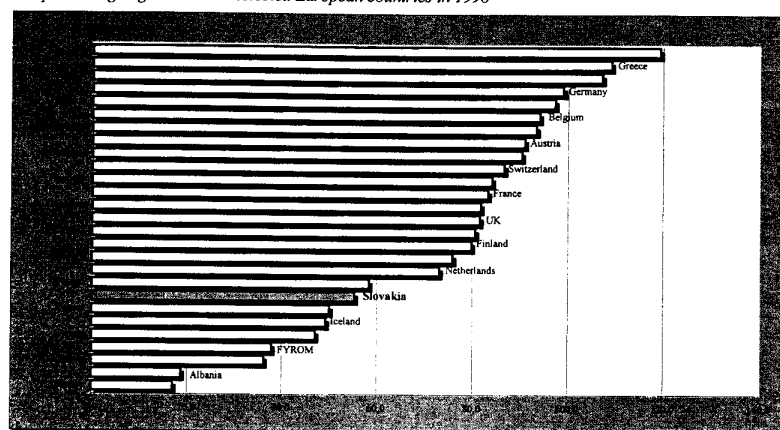
For the purposes of an international comparison of the age structure are, as a rule, used the shares of population aged until 15 and over 65 and their ratio called ageing index.

According to the above-mentioned criterion, the country with the youngest population in Europe is Turkey where in 1998 only 17 persons aged 65 and more fell on 100 persons being younger than 15 years. The young population is to be found in Albania too, with ageing index 18.8. The ageing index was below the value of 40 also in Moldavia and Macedonia.

Graph 9.1: Comparison of the age structure of the population of the SR and EU on 1 January 1998



Graph 9.2: Ageing index in the selected European countries in 1998



The country with the oldest population in Europe is Italy where 119.4 persons aged 65 and more fall on 100 persons in the pre-productive age. In practise it means, that persons aged 65 and more prevail over the children component of population. The similar situation was also in Greece (the ageing index 109.1) and in Spain (the ageing index 107.2). The high ageing index being over 90.0 was recorded also in other European countries, e.g. in Germany, Bulgaria, Belgium, Sweden, Austria and Portugal.

The Slovak Republic is classified by its age structure among the ten European countries with the youngest population, however, the decrease in natality and the expected increase of the population aged 65 and more can mean that the ageing index in Slovakia will be growing.

#### Nuptiality and divorce

The nuptiality and divorce belong among processes, which influence the demographic reproduction to a great extent. The nuptial and divorce behaviours of the population are closely related to national traditions, cultural habits and moral norms.

The international comparison of demographic aspects of nuptiality and divorce is due to above mentioned reason complicated especially with regard to different legal norms in particular countries. Demographically advanced countries, however, are getting closer according to their behaviour in this area and such a comparison between them is possible. Although smoother rates measuring both processes exist, we shall make the comparison by crude rates, the total marriage rate and total divorce rate.

In the post-war period, within the European cultural framework, marriage was a general event and individual communities differed only by age at marriage. Only

a small part of men and women remained outside marriage. The values of a crude marriage rate were in the majority of countries around 7 - 11‰ and the values of the total marriage rate were situated, as a rule, above the level of 0.8, in some countries they were even higher. It means that they corresponded to the state where nearly all potential brides and grooms contracted a marriage.

The nuptiality level was until the end of eighties relatively different in particular countries. It moved within the range of 4-11 marriages per 1000 population, exceptionally even over, but also below the presented boundaries. The following countries had the highest crude marriage rate: countries of the former Soviet Union - Moldova (11.5‰), Russian Federation (10.6‰), Belarus (10.1‰), Latvia (9.8‰), Ukraine (9.3‰), and Lithuania (9.2‰). The lowest level, below 6 marriages per 1000 inhabitants was in Sweden (4.5‰), Denmark (5.2‰), Norway (5.4‰), Switzerland (5.7‰) and Italy (5.7‰).

In West European countries the nuptiality indicators started to fall in the half of sixties. The whole complex of economic, social and psychological factors was in the background of this fact. The liberalisation of social norms but also the tendency to the individualistic way of life belongs to the most important factors. Firstly, the nuptiality decreased in Scandinavian countries, later the West and South Europe joined these countries. In the countries of the former East Block the high level of nuptiality maintained until nineties. In 1990, the crude marriage rate from these countries was the highest in Belarus (9.7‰), Moldova (9.7‰), Ukraine (9.3‰), Russian Federation (8.9‰), and in the Czech Republic (8.8‰); the lowest one was in Hungary (6.4‰), Poland (6.7‰), Bulgaria (6.8‰) and Slovakia (7.6‰).

Since 1990, the intensity of nuptiality has rapidly decreased also in these countries and currently it reaches the values close to the level which is common in the West European countries. In 1998, the crude marriage rate reached in Slovakia the value of 5.1‰, similarly as in Germany and Spain. The lowest crude marriage rate has Sweden (3.6‰), Estonia (3.7‰), Slovenia (3.8‰), and Latvia (3.9‰).

An interesting view on the intensity of nuptiality can be obtained also by the means of the total marriage rate of women. According to the newest available data, the lowest nuptiality in 1998 was in Estonia (0.35) and Lithuania (0.39). In some other countries, the level of total marriage rate was below 0.5. The following countries belonged to this group: Hungary (0.46), Slovenia (0.45) and Sweden (0.41). The Slovak Republic belongs to the group of countries with the total marriage rate being within the range of 0.55-0.65. In addition to Slovakia (0.56), the members of this group are, e.g. Italy (0.60), Ireland (0.61), Iceland (0.62), Switzerland (0.62), Poland (0.63) and Denmark (0.64), hence, the intensity of nuptiality of single women corresponds to 60-64 % of the potential number of marriages. Higher level of the total marriage rate is currently only in Croatia (0.70), Portugal (0.77) and Turkey (0.82).

The Central European countries, including Slovakia and Baltic countries, belong according to the decreasing tendency in nuptiality to the broader European average. A certain explanation of a decreasing tendency in nuptiality is the increase of the average age of single brides. It can happen also due to the fact that part of engaged couples postpone the decision to marry to an older age.

During the last twenty years the already mentioned increase of the mean age of women at first marriage occurred in the majority of European countries. Around 1970, the mean age of women at first marriage was mostly below 24 years, in eighties, mainly in Netherlands, Austria, France and United Kingdom, the mean age of women at first marriage increased up to 25-26 years. In Sweden and Denmark, it was higher than 28 years and in Switzerland it approached this value.

Also in nineties the mean age of women at first marriage was increasing nearly in all European countries. It is increasing also in the Slovak Republic, however, it still belongs in Europe to the lowest (in 1998 it was 23.1 years). The low age at first marriage is also in Belarus (22.1 years), Moldova (21.7 years) and Turkey (22.6 years). The highest mean age at first marriage is in Iceland (29.7 years), Denmark (29.4 years), Sweden (29.2 years), Ireland (27.8 years), Switzerland, France, Netherlands and in Finland (in each it is 27.6 years).

The international comparison of data on the level of divorce is complicated not only due to a different legislation but also due to a changing valuation ranking of population and the increasing share of cohabitations without marriage, on the collapse of which there is no official statistics. Actually, a continuation of the impact of conditions related to the overall dynamics of the

economic and social development of the modern age is the subject of this process. It is mainly the reinforcing of the free choice of people in all spheres of life, regardless whether it is the choice of occupation, decision-making on the number of children, choice of the partner for the rest of life, emancipation of women or the decision-making in order to retain the marriage. The experiences from European countries, which have run through the demographic transition, show that the changing priority-setting of people leads rather to the increase in divorce and that even the decreasing nuptiality does not have a consequence in the decrease of divorce.

In the majority of European countries the level of divorce was until seventies very low. Measured by the crude divorce rate it was higher than 1.5‰ in 1970 in Hungary and the Czech Republic (both at the level of 2.2‰), moreover, in Denmark (1.9‰) and in the countries of the former Soviet Union. In Slovakia, the divorce rate reached a very low level and in 1970 it was only 0.8‰. However, since 1970 divorce has started to increase, in some countries it has increased very fast. The exception was only Ireland where divorce did not exist according to law (in Italy divorce has been permitted only since 1971). In the Slovak Republic divorce increased gradually from 0.8‰ in 1970 up to 1.7‰ in 1990. Also in nineties it had the tendency of a slight increase.

The divorce level measured by the total divorce rate was in 1970 the highest in Latvia (0.51); Estonia was very close to this level. Until 1990, the total divorce rate gradually increased nearly in all European countries. In Sweden and Denmark it reached the level of 0.38. The low total divorce rate was in 1990 in Italy (0.08), Slovenia (0.14), Poland (0.15), Bulgaria (0.17), Romania (0.19) and in Slovakia (0.24). Currently it is the highest in Sweden (0.50), Finland (0.48), Norway (0.44), the United Kingdom (0.43) and in the Czech Republic (0.42). The Slovak Republic, belongs currently among European countries with a lower level of divorce.

#### Natality and abortion

When analysing and evaluating the population development the greatest attention is drawn to the natality and fertility processes. The level of natality is one of the two main criteria for judging the demographic situation in the country.

For the international comparison of a natality situation, the most appropriate indicator is the total fertility rate, which is, as a contrast to the crude birth rate, not distorted by differences in age structure of countries being the subject of comparison.

In sixties, the total fertility rate in West European countries mostly reached the value higher than 2.5. The Ireland and Iceland were out of average with the total fertility rate being over 4.0. In Ireland it was caused mainly by the strong impact of Catholicism rejecting the induced abortion not only in legislation but also in practise. In Iceland it was due to the tradition of big families. In the beginning of sixties, the highest total

fertility rate (over 6.0) was in Albania and Turkey with their "non-European" population behaviour corresponding to a non-regulated natality in developing countries. The high feasible fertility was also in the countries of Pyrenean peninsula.

Since the half of sixties the fertility in Europe started to fall. Between 1970-1980, the total fertility rate decreased in all European countries, except for Poland (increase from 2.20 up to 2.28), and the former Czechoslovakia (increase from 2.07 up to 2.16). For the first time the total fertility rate fell in many countries below the level of 2.0, mostly in the former West Germany (down to 1.45) where the falling number of births started to be considered as a problem.

The total fertility rate above 2.0 remained until 1990 in Albania (3.03), Turkey (2.99), Iceland (2.31), Ireland (2.13), Sweden (2.13), Poland (2.04) and in Slovakia (2.09). In Germany, Austria, Greece, Italy, Slovenia and in Spain it fell below the level of 1.5. The lowest level, paradoxically, was in catholic countries - Spain (1.36) and Italy (1.33).

After 1990 the trends in fertility were not in particular countries the same. In the majority of West and North European countries the values of total fertility rate remained stable at the level of 1.5-1.8, or slightly decreased. The fall down to very low levels (1.2-1.3) was recorded in Italy, Spain and Greece. On the contrary, the high fertility was in Iceland (2.08) and in Albania it was even more (2.70).

The development in the East Europe in nineties was indicated by a deep fall of fertility. The most dramatic fall occurred in Latvia where during 1990-1998 the value of the total fertility rate decreased from 2.02 down to 1.09, i.e. by 46%. The great decline of the total fertility rate was recorded also in Estonia, Bulgaria, Belarus, the Czech Republic, Lithuania, Russian Federation, Romania and Ukraine. The majority of East

European countries, thus, approached the countries with a long-range very low level of fertility.

The lowest level of total fertility rate in Europe was in 1998 in Latvia (1.09), Bulgaria (1.11), Spain (1.14), the Czech Republic (1.16) and Italy (1.19). On the opposite end of the scale were Finland, Norway and Ireland having the total fertility rate in between 1.7-1.9 and Iceland (2.05).

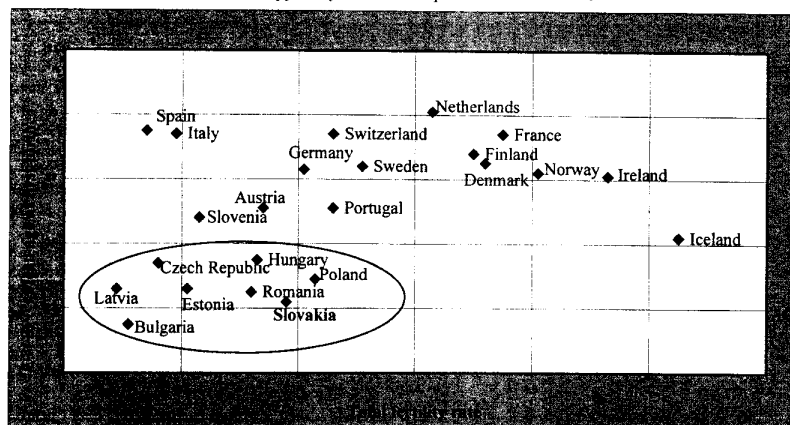
From the overview of the fertility indicators we can say that the prevailing part of European population is not currently able to ensure their reproduction (the level of the total fertility of 2.1 corresponds to it) and the decrease of fertility is, in general, ongoing.

In addition to the gradual closeness of the level of fertility intensity indicators, the second Europe-wide tendency is the increasing mean age of mothers at the first birth. This trend started at the end of seventies in the North and West Europe and a little bit later also in South European countries. In 1990, the mean age of mother at the first birth reached the level of 26-28 years in many Western countries.

In the East Europe the mean age of mothers at the first birth started to grow only recently. Until now, the East European women became mothers by 4-6 years earlier, in average, than women in Western countries. Within Europe, the highest mean age of mothers at the first birth was in 1998 in Netherlands (29.1) and also in Spain (28.5), Italy (28.4), Finland (27.8), Denmark (27.5), Sweden (27.4), Germany (27.3), United Kingdom (27.3) and Ireland (27.1).

The Slovak Republic is, after Bulgaria, the country with the lowest mean age of mother at the first birth (23.3) at all, although recently it is gradually shifting towards the older age. In Poland in 1998 it reached 23.9 years, in the Czech Republic 24.4 years and in Hungary 24.5 years.

Graph 9.3: Selected characteristics of fertility in some European countries in 1998



Within the demographic statistics, data on abortion belong to less reliable and it is hard to compare them internationally due to different legislation in individual countries. Some countries even do not submit the information on abortion, e.g. Ireland, Portugal, Cyprus, Turkey etc. It might be because abortions are not permitted in the given country or are not statistically registered.

A certain idea on the level of induced abortion within the international comparison framework can give the abortion index in which the number of induced abortions is related to the number of born children. During the last decades, many countries have a liberal attitude on abortion. When high quality contraception had not been available in these countries, it led to its replacement exactly by the induced abortion. The

abortion index reached in some countries 80-90%. In other countries the number of induced abortions exceeded even the number of births (Bulgaria, Ukraine, Russia etc.).

In the Slovak Republic, the abortion index reached the highest value in 1988 – 70.9%. After a significant decrease in the level of abortion in nineties, the Slovak Republic currently belongs among countries reaching the average values; in 1998 the abortion index reached 46.1%.

The extremely high level of abortion with the abortion index being over 110% is in Bulgaria, Estonia, Ukraine, Russia and Romania. The lowest level of abortion is in Netherlands, Germany, France, Italy, Spain, Greece and some other countries (the abortion index 10-30%).

Tab. 9.2: Overview of demographic indicators in 1998 in EU countries

	Age structure (%)				Aging Index	Mean age at first marriage		TRF	Mean age at first birth	Life expectancy at birth		Infant mortality rate	Increase per 1000 population	
	0-14	15-44	45-64	65+		Males	Females			Males	Females		Natural	Total
Belgium	17.7	42.2	23.5	16.6	94.0	27.8 <sup>1</sup>	25.7 <sup>1</sup>	1.53	27.0 <sup>1</sup>	74.8	81.1	6.1	1.0	2.1
Denmark	18.2	41.6	25.3	14.9	81.7	31.6 <sup>1</sup>	29.9 <sup>1</sup>	1.72	27.5 <sup>1</sup>	73.7	78.6	4.7	1.4	3.5
Germany	16.0	42.7	25.5	15.8	99.0	29.3 <sup>1</sup>	26.7	1.33	27.7	74.0	80.3	4.9	-0.8	-0.2
Greece	15.5	43.6	24.1	16.9	109.1	30.2 <sup>1</sup>	25.9	1.30	26.8 <sup>2</sup>	75.5	80.8	6.8	0.0	2.1
Spain	15.3	46.1	22.2	16.4	107.2	29.2 <sup>2</sup>	27.1 <sup>2</sup>	1.15	28.5 <sup>2</sup>	74.3	81.5	5.5	0.1	1.2
France	19.0	42.4	22.8	15.8	83.2	29.4 <sup>2</sup>	27.6	1.75	28.4 <sup>2</sup>	74.6	82.3	4.7	3.4	4.1
Ireland	22.7	46.0	20.0	11.4	50.1	29.7 <sup>3</sup>	27.9 <sup>3</sup>	1.93	27.1	73.4 <sup>1</sup>	78.6 <sup>1</sup>	6.2	6.0	13.6
Italy	14.6	43.2	24.8	17.4	119.4	29.8 <sup>2</sup>	27.1 <sup>2</sup>	1.19	28.4 <sup>2</sup>	74.9 <sup>1</sup>	81.3 <sup>1</sup>	5.5	-0.9	0.9
Luxembourg	18.8	43.7	23.2	14.3	75.9	29.3 <sup>1</sup>	27.6	1.67	x	74.1 <sup>1</sup>	79.8 <sup>1</sup>	5.0	3.5	12.9
Netherlands	18.5	44.0	24.0	13.5	73.1	29.8 <sup>1</sup>	27.6	1.63	29.1	75.2	80.6	5.2	4.0	6.7
Austria	17.8	44.2	23.4	15.5	90.9	28.9 <sup>1</sup>	26.7	1.34	26.1	74.8	80.9	4.9	0.4	0.9
Portugal	16.9	44.8	23.1	15.2	90.3	27.0 <sup>1</sup>	25.0 <sup>1</sup>	1.46	26.1	71.7	78.8	6.0	0.7	2.2
Finland	18.4	40.8	26.1	14.7	79.8	29.3 <sup>1</sup>	27.6	1.70	27.8	73.5	80.8	4.2	1.5	2.4
Sweden	18.6	39.2	24.9	17.4	93.3	31.6 <sup>1</sup>	29.2	1.51	27.4 <sup>2</sup>	76.7	81.8	3.6	-0.5	0.8
United Kingdom	19.2	42.1	22.9	15.7	81.5	28.8 <sup>2</sup>	27.3	1.70	26.7 <sup>2</sup>	74.3	79.5	5.7	1.5	3.7

<sup>1</sup>1997, <sup>2</sup>1996, <sup>3</sup>1995, <sup>4</sup>1993

### Mortality

The mortality, together with fertility, represents the basic component of the reproduction of population. To express its level it is possible to use many indicators, however, for the international comparison the indicator of the infant mortality rate and mainly the life expectancy at birth are most frequently used.

The indicator of infant mortality rate has a special position within the characterisation of mortality relations. In seventies and eighties in all European countries a continuous decrease of infant mortality rate occurred, in some countries faster, in some countries slower, depending on its level at the end of sixties. The infant mortality rate decreased mostly in countries in which the second demographic transition finished only after the World War II or even later. Despite the rapid decrease, the infant mortality rate remains in these countries above the European average. In 1990, the infant mortality rate was in Turkey at the level of 58.0‰, in

Albania 28.3‰, Romania 26.9‰, Poland 19.3‰, and in Moldova 19.0‰. The Slovak Republic is, by its value of infant mortality being 12.0‰, classified among 14 European countries with the level of infant mortality rate in the range of 10.0-15.0‰. The lowest level of infant mortality rate in 1990 was recorded in Finland (5.7‰), Iceland (5.9‰), Sweden (6.0‰) and in Belgium (6.6‰).

In nineties, the decrease of the level of infant mortality rate continued and currently many European countries reach low values, however, substantial differences still exist. According to the latest available data the values lower than 5 dead children under one year per 1000 live births were recorded in 9 European countries: Austria and Germany (both by 4.9‰), Switzerland (4.8‰), France and Denmark (both by 4.7‰), Finland (4.2‰), Norway (4.0‰) and the lowest level of infant mortality rate was in Sweden (3.6‰) and Iceland

(2.6‰). The Slovak Republic, by the level of infant mortality 8.8 is being put on the 16<sup>th</sup> place in the European rank.

The values of infant mortality rate higher than 14 were registered in 1998 in Bulgaria (14.4‰), Latvia (14.9‰), Russian Federation (16.5‰), Moldova (17.5‰) and in Romania (20.5‰). The values over 28‰ are reported by Albania (28.3‰) and Turkey (37.9‰).

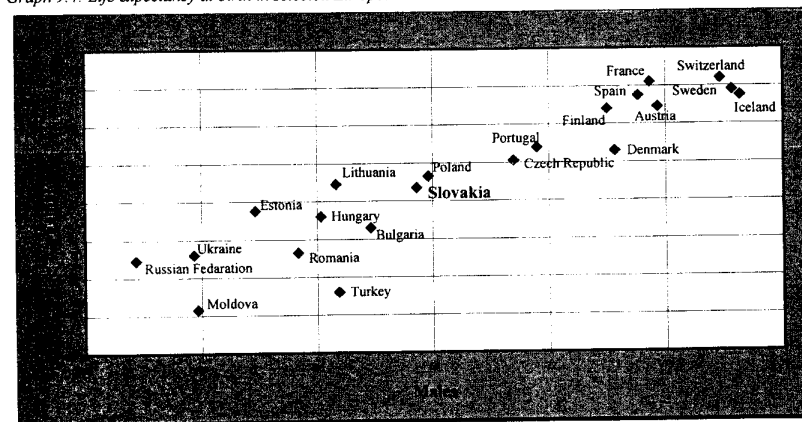
Another suitable indicator of the level of mortality and living conditions is the life expectancy at birth. In the post-war time period the values of the life expectancy at birth gradually increased in all advanced countries of Europe. The development slowed down at the beginning of sixties and in some countries the indicators of the life expectancy at birth during several

years stagnated at the level of 65-70 years for both genders.

In West, North and South European countries the increasing trend of the end of sixties has been gradually recovered mainly thanks to the improvement in the death rates at older age categories. The ascending trend of indicators on the life expectancy continued in the majority of European countries also in seventies and eighties.

In case of men, 14 countries of Western Europe had the values of the life expectancy at birth in 1980 higher than 70.0 years, of which the highest was in Iceland (73.9), Sweden (72.8) and Netherlands (72.5). In women population, the highest values were in Iceland (79.4), Netherlands (79.2) and Norway (79.0).

Graph 9.4: Life expectancy at birth in selected European countries in 1998



The situation in the East Block countries, where the mortality indicators had changed only negligibly, sharply contrasted with the above-mentioned development. The stagnation of values of life expectancy at birth, especially for men (at the level of 65-67 years), lasted nearly three decades, in some countries (Bulgaria, Hungary, Slovakia) even a slight decrease occurred during 1980-1990. From the former socialist countries, the life expectancy at birth increased during the observed time period mainly in the Czech Republic by 0.8 years up to 67.6 years, in Poland by 0.5 years to 66.5 years and in Romania by 0.1 years to the level of 66.6 years. In 1990, the Slovak men, according to the value of the life expectancy at birth being 66.7 years, were, after Bulgaria and the Czech Republic, on the third position among the former socialist countries. The mortality trends for women were similar, although less significant. The death rates in case of women were improving also in seventies and eighties, although less fast as in the Western Europe. During 1980-1990 the

life expectancy at birth for women increased in all post-socialist countries, mostly in the Czech Republic by 1.6 years up to 75 years, in Slovakia and Romania by 1.2 years up to 75.4 and 73 years respectively. In the period after 1990, the worsening of overall mortality indicators occurred in several East European countries. It was related to the economic and political problems and the overall social instability. It was reflected in the decrease of the life expectancy at birth especially in countries of the former Soviet Union and Bulgaria and in Romania in case of men. From the countries of the former Soviet Union it was mainly in Moldova where during 1990-1998 the value of the life expectancy at birth for men decreased by 2.1 years down to 62.9 years and for women by 1.5 years down to 70.3 years, furthermore, in Russian Federation – for men by 2.5 years down to 61.3 years and for women by 1.4 years down to 72.9 years; in Ukraine for men it was a decrease by 3.1 years down to the level of 62.8 years and for women by 1.8 years down to 73.2 years; in Belarus for men, the decrease

was by 3.6 years down to 62.7 years and for women by 1.2 years down to the level of 74.4 years.

A slight decline in the life expectancy at birth for men occurred also in Estonia, Latvia and Lithuania. In Bulgaria the life expectancy at birth for men decreased by 0.6 years to 67.4 years and for women by 1.4 years to 74.6 years. The Slovak Republic, according to the development of its mortality, differs from the above-mentioned post-communist countries. It represents, together with the Czech Republic, Poland, Slovenia, but also with Hungary, a group in which the values of the life expectancy at birth have prolonged since 1990 and are part of the trend prevailing in the rest of advanced Europe. However, by the value of the life expectancy

at birth for men being 68.6 and for women 76.7 years, it still remains in the bottom part of the European rank and is significantly backward as compared to Western countries. The highest values in the life expectancy at birth in Europe are for men in Iceland (76.9), then in Sweden (76.7) and Switzerland (76.4) and for women it is in the Switzerland (82.4), France (82.2), Sweden (81.8), Spain and Iceland (both by 81.5) and Norway (81.3).

It can be assumed that the differences in the mortality relations between European countries will be continuously diminishing, however, the prolonging of the life expectancy towards the values achieved in the advanced Europe will be a long-term matter.

## Conclusion

Similarly as in other countries of the Central and Eastern Europe in transition, Slovakia has registered a decade of significant changes. This statement is related also to the field of the population development. Demographic changes were so remarkable that we are speaking about a transition to a new model of the reproduction behaviour.

The current population development in Slovakia is characterised by a deep fall in nuptiality, fertility and abortion, an ascending trend in the development of divorce, a gradual improvement of the mortality level and by changes in the forms of partner coexistence. The consequence of above mentioned development is the declining natural increase of population, which is approaching the zero value, as well as the changes in the structure of population and families. The decisive part of the mentioned changes happened in Slovakia in the first half of nineties, thus, during a very short time period. The same processes, which ran in the advanced countries of the West and North Europe from the half of sixties until the end of seventies, are in question.

In some cases the reaction to the external incentives was fast (nuptiality, fertility) and the level of these processes in Slovakia has already reached values, which are quite common in the advanced countries. If other demographic processes are concerned, the current differences in the level are given by the difference in the starting point and the longer inertia of particular processes or they are caused by circumstances, which have their historical and cultural background. It is likely that the differences in levels of some processes will retain also in the forthcoming years.

Thus, what development can be expected in the future? It is likely that the future decade will be, from the demographic standpoint, less dynamic as the previous one. In the forthcoming ten years we can expect the continuation of current trends, which show the tendency to stagnation or to only minor changes. In some cases also the changes in trends are possible, as a consequence of compensation effects for the development in nineties. Nevertheless, no radical changes will be in question. The further political and social development and the ongoing process of transformation will have a remarkable impact on this development.

In general it can be expected that the decisive demographic events of the 21<sup>st</sup> century will be the ageing of population and migration. However, these processes will influence more significantly the situation in Slovakia only after 2010. After this time period also other significant changes in the population development cannot be excluded. Mainly the development of migration will be the decisive factor from this point of view.

It is likely that nuptiality and fertility in Slovakia have already reached the values below which they should not fall any more. With regard to the nuptiality, it is questionable to what extent the current development

was a postponement of marriages to the older age or the decision to coexist without marriage. The development at the end of nineties indicates that in majority of cases it was probably the postponement of marriages.

For the development of natality will be decisive whether the fall in nineties was caused by the postponement of births to an older age or by a long-term attitude to a smaller number of children or even by a planned extensive childlessness. It is likely that a combination of first two possibilities is in question. It means that a compensation effect should reappear (at least partially), i.e. the feasibility of the postponed births, which should slightly increase the fertility level in the very next future. It could mean the reinforcement of the two-children model of family, which weakened in nineties (maybe only temporary). The model of family with many children is surely the question of the past, on the other hand, the extensive planned childlessness is also not expected. A more radical change in the development of natality, which could change the decreasing trend in the number of population in the very next future, seems not to be very likely.

It is likely that the development of divorce and abortion will maintain the heretofore tendencies. It means that the divorce will be moderately increasing and abortion slightly decreasing.

A more significant and long-term improvement in mortality will depend firstly on the development of the standard of living. The situation in neighbour countries, where the transformation process of society was more advanced than in our country and brought also a remarkable improvement in mortality, indicates the expressive potential for the decrease of mortality in Slovakia.

A higher territorial mobility of population will depend on the economic and social development of regions and on the creation of the market with dwellings. The external migration existed in Slovakia only at a symbolic level. It is likely that this state will not last too long. The demographic development in the advanced countries and the finalisation of integration processes in Europe will bring more possibilities for self-assertion abroad. On the contrary, the expected increase of the prestige of Slovakia abroad will increase the attractiveness of our country for immigrants from developing countries by which the consequences of the current, and mainly from the expected, population development should be partially compensated.

Among the changes in the age structure of population the ageing of population will still be more and more dominating. A significant acceleration of this process will appear after 2010 when the powerful post-war age groups will enter the post-productive age and, on the contrary, the weak age groups from the beginning of nineties will reach the age of the highest fertility. The consequences of these changes, mainly on economy,



healthcare and social systems, will be probably one of the most serious social problems.

The impact of the current population development on the number of population in the very next future is quite obvious. If the more favourable case happens, the fall of the population increase will temporary stop and the shortage is to be expected around 2010 at the latest.

If the less favourable case occurs, the fall in the natural increase will go on and during 2-3 years it will change into a decrease. The development of the number of population after 2010 will depend to a great extent on already mentioned development of the external migration.

## Appendix

Appendix of this publication contains time series of basic demographic data for the SR during 1950-1999 and the data on the age structure of population of the SR

for 1999 (the mid-year population as well as the population on 31 December).



## Overview of the population change in the Slovak Republic during 1950-1999

Year	Mid-year population	Marriages	Divorces	Births			Outside marriage	Abortions		Registered pregnancies
				Live births	Stillbirths	Total		Total	Induced	
1950	3 463 446	39 082	1 800	99 721	1 866	101 587	5 538	x	x	x
1951	3 508 698	35 703	1 864	100 663	1 933	102 596	4 826	x	x	x
1952	3 558 137	33 229	2 107	100 824	1 833	102 657	4 536	x	x	x
1953	3 598 761	28 495	1 517	99 124	1 098	100 222	4 388	5 391	x	105 613
1954	3 661 437	31 444	1 291	98 310	1 159	99 469	4 514	7 612	x	107 081
1955	3 726 601	31 816	1 535	99 305	1 329	100 634	4 730	9 237	x	109 871
1956	3 787 111	35 199	1 762	99 467	1 205	100 672	5 009	9 009	x	109 681
1957	3 844 277	28 299	1 827	97 311	1 243	98 554	4 768	9 528	x	108 082
1958	3 899 751	31 302	2 281	93 272	1 108	94 380	4 517	21 433	12 383	115 813
1959	3 946 039	31 494	2 409	87 991	1 023	89 014	4 131	26 267	17 217	115 281
1960	3 994 270	32 179	2 321	88 412	971	89 383	4 189	29 389	20 738	118 772
1961	4 191 977	31 543	2 488	87 359	994	88 353	3 899	32 942	24 244	121 295
1962	4 238 056	30 712	2 466	83 899	893	84 792	3 955	32 343	23 784	117 135
1963	4 282 865	30 659	2 337	87 158	872	88 030	4 112	28 256	19 076	116 286
1964	4 327 949	30 220	2 356	86 878	842	87 720	4 388	28 323	19 174	116 043
1965	4 373 595	30 512	2 506	84 257	789	85 046	4 506	29 417	21 037	114 463
1966	4 413 853	30 917	2 809	81 453	770	82 223	4 379	32 491	24 445	114 714
1967	4 450 880	32 682	2 537	77 537	724	78 261	4 500	34 467	26 571	112 728
1968	4 483 656	33 801	2 994	76 370	647	77 017	4 577	35 043	27 398	112 060
1969	4 518 773	34 877	3 386	79 769	643	80 412	4 955	36 144	28 534	116 556
1970	4 528 459	35 961	3 420	80 666	665	81 331	5 048	35 565	27 873	116 896
1971	4 559 341	38 088	4 458	83 062	701	83 763	5 061	36 401	28 619	120 164
1972	4 596 330	39 771	4 190	87 794	667	88 461	5 063	34 809	26 213	123 270
1973	4 640 673	41 770	4 187	92 953	683	93 636	4 814	34 479	25 335	128 115
1974	4 691 014	42 389	5 445	97 585	707	98 292	5 201	35 226	26 086	133 518
1975	4 739 301	43 835	6 154	97 649	723	98 372	5 177	35 437	26 160	133 809
1976	4 789 452	44 165	6 017	99 814	714	100 528	5 173	37 233	27 700	137 761
1977	4 840 819	44 474	5 781	99 533	724	100 257	5 181	37 110	27 875	137 367
1978	4 891 673	44 241	6 151	100 193	699	100 892	5 278	38 405	28 641	139 297
1979	4 940 223	42 638	6 050	100 240	649	100 889	5 481	39 616	29 981	140 505
1980	4 984 331	39 578	6 645	95 100	620	95 720	5 490	40 691	31 240	136 411
1981	5 017 032	39 352	6 987	93 290	572	93 862	5 362	41 387	31 943	135 249
1982	5 054 770	40 398	6 550	92 618	574	93 192	5 508	42 532	33 107	135 724
1983	5 091 537	40 130	6 935	92 053	475	92 528	5 543	43 071	33 625	135 599
1984	5 127 719	39 626	6 908	90 843	502	91 345	5 718	43 594	34 268	134 939
1985	5 161 789	38 930	7 800	90 155	490	90 645	5 967	45 594	36 283	136 239
1986	5 192 789	38 341	8 325	87 138	503	87 641	6 005	50 124	40 624	137 765
1987	5 223 609	38 395	8 486	84 006	416	84 422	5 962	58 081	49 690	142 503
1988	5 251 120	37 493	8 270	83 242	417	83 659	5 714	59 352	51 000	143 011
1989	5 276 186	36 525	8 304	80 116	366	80 482	5 798	56 307	48 602	136 789
1990	5 297 774	40 435	8 867	79 989	401	80 390	6 134	56 176	48 437	136 566
1991	5 283 404	32 721	7 893	78 569	379	78 948	7 086	53 141	45 902	132 089
1992	5 306 539	33 880	8 057	74 640	357	74 997	7 346	49 530	42 626	124 527
1993	5 324 632	30 771	8 143	73 256	327	73 583	7 788	45 552	38 815	119 135
1994	5 347 413	28 155	8 666	66 370	274	66 644	7 882	41 264	34 883	107 908
1995	5 363 676	27 489	8 978	61 427	241	61 668	7 788	35 879	29 409	97 547
1996	5 373 793	27 484	9 402	60 123	240	60 363	8 486	30 885	25 173	91 248
1997	5 383 233	27 955	9 138	59 111	245	59 356	8 982	27 798	22 318	87 154
1998	5 390 866	27 494	9 312	57 582	281	57 863	8 600	26 658	21 109	84 521
1999	5 395 324	27 340	9 664	56 223	259	56 482	9 568	25 557	19 949	82 039

## Overview of the population change in the Slovak Republic during 1950-1999 (continuation)

Year	Deaths			Natural increase	Net migration			Total increase
	Total	Under 1 year	Under 28 days		Internal	External	Total	
1950	39 668	10 306	4 154	60 053	-14 850	392	-14 458	45 595
1951	40 505	10 300	3 714	60 158	-12 406	236	-12 170	47 988
1952	36 897	7 499	3 105	63 927	-20 596	239	-20 357	43 570
1953	35 598	6 188	2 412	63 526	-11 142	189	-10 953	52 573
1954	34 866	4 955	2 101	63 444	1 491	200	1 691	65 135
1955	32 917	4 403	1 939	66 388	-4 707	254	-4 453	61 935
1956	32 815	4 057	1 786	66 652	-7 240	130	-7 110	59 542
1957	35 755	4 541	1 703	61 556	-7 231	119	-7 112	54 444
1958	32 106	3 470	1 441	61 166	-6 731	-65	-6 796	54 370
1959	34 077	2 857	1 222	53 914	-8 895	-188	-9 083	44 831
1960	31 609	2 528	1 243	56 803	-7 770	-310	-8 080	48 723
1961	31 403	2 427	1 218	55 956	-5 718	82	-5 636	50 320
1962	34 398	2 139	1 081	49 501	-6 991	212	-6 779	42 722
1963	32 978	2 284	1 182	54 180	-9 347	102	-9 245	44 935
1964	32 875	2 227	1 190	54 003	-7 783	-506	-8 289	45 714
1965	35 910	2 404	1 436	48 347	-7 038	261	-6 777	41 570
1966	36 357	2 201	1 280	45 096	-7 568	2 268	-5 300	39 796
1967	35 458	1 964	1 182	42 079	-7 742	1 269	-6 473	35 606
1968	38 076	1 768	1 073	38 294	-4 978	173	-4 805	33 489
1969	40 623	2 034	1 266	39 146	-3 502	252	-3 250	35 896
1970	42 240	2 072	1 347	38 426	-4 568	111	-4 457	33 969
1971	42 856	2 028	1 350	40 206	-4 818	-271	-5 089	35 117
1972	41 410	2 228	1 548	46 384	-3 544	389	-3 155	43 229
1973	43 759	2 310	1 632	49 194	-3 142	365	-2 777	46 417
1974	44 934	2 228	1 605	52 651	-3 003	292	-2 711	49 940
1975	45 248	2 314	1 680	52 401	-3 315	-62	-3 377	49 024
1976	45 420	2 441	1 792	54 394	-2 864	249	-2 615	51 779
1977	47 181	2 142	1 489	52 352	-2 556	413	-2 143	50 209
1978	47 778	2 186	1 583	52 415	-3 444	68	-3 376	49 039
1979	47 837	2 099	1 432	52 403	-3 760	14	-3 746	48 657
1980	50 579	1 988	1 319	44 521	-3 132	3	-3 129	41 392
1981	49 632	1 793	1 220	43 658	-3 877	-229	-4 106	39 552
1982	50 393	1 662	1 143	42 225	-3 625	-165	-3 790	38 435
1983	52 433	1 614	1 082	39 620	-4 004	-306	-4 310	35 310
1984	51 739	1 558	1 018	39 104	-3 979	-183	-4 162	34 942
1985	52 464	1 471	1 005	37 691	-3 177	-115	-3 292	34 399
1986	53 133	1 309	899	34 005	-4 078	-186	-4 264	29 741
1987	51 980	1 190	795	32 026	-3 498	-264	-3 762	28 264
1988	52 475	1 108	734	30 767	-3 364	-155	-3 519	27 248
1989	53 902	1 078	738	26 214	-2 745	-26	-2 771	23 443
1990	54 619	959	669	25 370	-2 399	77	-2 322	23 048
1991	54 618	1 039	698	23 951	-1 010	1 225	215	24 166
1992	53 423	939	623	21 217	-4 917	1 978	-2 939	18 278
1993	52 707	779	550	20 549	x	1 751	1 751	22 300
1994	51 386	743	488	14 984	x	4 768	4 768	19 752
1995	52 686	675	483	8 741	x	2 842	2 842	11 583
1996	51 236	615	415	8 887	x	2 255	2 255	11 142
1997	52 124	514	321	6 987	x	1 731	1 731	8 718
1998	53 156	506	310	4 426	x	1 306	1 306	5 732
1999	52 402	467	289	3 821	x	1 454	1 454	5 275

## Overview of the population change in the Slovak Republic during 1950-1999 (continuation)

Year	Marriages	Divorces	Births		Abortions	Deaths	Natural increase	Total increase
			Total	Live births				
			per 1000 population					
1950	11.28	0.52	29.33	28.79	x	11.45	17.34	13.16
1951	10.18	0.53	29.24	28.69	x	11.54	17.15	13.68
1952	9.34	0.59	28.85	28.34	x	10.37	17.97	12.25
1953	7.92	0.42	27.85	27.54	1.50	9.89	17.65	14.61
1954	8.59	0.35	27.17	26.85	2.08	9.52	17.33	17.79
1955	8.54	0.41	27.00	26.65	2.48	8.83	17.81	16.62
1956	9.29	0.47	26.58	26.26	2.38	8.66	17.60	15.72
1957	7.36	0.48	25.64	25.31	2.48	9.30	16.01	14.16
1958	8.03	0.58	24.20	23.92	5.50	8.23	15.68	13.94
1959	7.98	0.61	22.56	22.30	6.66	8.64	13.66	11.36
1960	8.06	0.58	22.38	22.13	7.36	7.91	14.22	12.20
1961	7.52	0.59	21.08	20.84	7.86	7.49	13.35	12.00
1962	7.25	0.58	20.01	19.80	7.63	8.12	11.68	10.08
1963	7.16	0.55	20.55	20.35	6.60	7.70	12.65	10.49
1964	6.98	0.54	20.27	20.07	6.54	7.60	12.48	10.56
1965	6.98	0.57	19.45	19.26	6.73	8.21	11.05	9.50
1966	7.00	0.64	18.63	18.45	7.36	8.24	10.22	9.02
1967	7.34	0.57	17.58	17.42	7.74	7.97	9.45	8.00
1968	7.54	0.67	17.18	17.03	7.82	8.49	8.54	7.47
1969	7.72	0.75	17.80	17.65	8.00	8.99	8.66	7.94
1970	7.94	0.76	17.96	17.81	7.85	9.33	8.49	7.50
1971	8.35	0.98	18.37	18.22	7.98	9.40	8.82	7.70
1972	8.65	0.91	19.25	19.10	7.57	9.01	10.09	9.41
1973	9.00	0.90	20.18	20.03	7.43	9.43	10.60	10.00
1974	9.04	1.16	20.95	20.80	7.51	9.58	11.22	10.65
1975	9.25	1.30	20.76	20.60	7.48	9.55	11.06	10.34
1976	9.22	1.26	20.99	20.84	7.77	9.48	11.36	10.81
1977	9.19	1.19	20.71	20.56	7.67	9.75	10.81	10.37
1978	9.04	1.26	20.63	20.48	7.55	9.77	10.72	10.02
1979	8.63	1.22	20.42	20.29	8.02	9.68	10.61	9.85
1980	7.94	1.33	19.20	19.08	8.16	10.15	8.93	8.30
1981	7.84	1.39	18.71	18.59	8.25	9.89	8.70	7.88
1982	7.99	1.30	18.44	18.32	8.41	9.97	8.35	7.60
1983	7.88	1.36	18.17	18.08	8.46	10.30	7.78	6.94
1984	7.73	1.35	17.81	17.72	8.50	10.09	7.63	6.81
1985	7.54	1.51	17.56	17.47	8.83	10.16	7.30	6.66
1986	7.38	1.60	16.88	16.78	9.65	10.23	6.55	5.73
1987	7.35	1.62	16.16	16.08	11.12	9.95	6.13	5.41
1988	7.14	1.57	15.93	15.85	11.30	9.99	5.86	5.19
1989	6.92	1.57	15.25	15.18	10.67	10.22	4.97	4.44
1990	7.63	1.67	15.17	15.10	10.60	10.31	4.79	4.35
1991	6.19	1.49	14.94	14.87	10.06	10.34	4.53	4.57
1992	6.38	1.52	14.13	14.07	9.33	10.07	4.00	3.44
1993	5.78	1.53	13.82	13.76	8.55	9.90	3.86	4.19
1994	5.27	1.62	12.46	12.41	7.72	9.61	2.80	3.69
1995	5.13	1.67	11.50	11.45	6.69	9.82	1.63	2.16
1996	5.11	1.75	11.23	11.19	5.75	9.53	1.65	2.07
1997	5.19	1.70	11.03	10.98	5.16	9.68	1.30	1.62
1998	5.10	1.73	10.73	10.68	4.95	9.86	0.82	1.06
1999	5.07	1.79	10.47	10.42	4.74	9.71	0.71	0.98

## Overview of the population change in the Slovak Republic during 1950-1999 (continuation)

Year	Divorces per 100 mar- riages	Abortions per 100 births	Stillbirths per 1000 births	Mortality		
				Infant	Neonatal	Perinatal
1950	4.61	x	18.37	103.35	41.66	43.23
1951	5.22	x	18.84	102.32	36.90	40.66
1952	6.34	x	17.86	74.38	30.80	38.14
1953	5.32	5.38	10.96	62.43	24.33	26.56
1954	4.11	7.65	11.65	50.40	21.37	25.96
1955	4.82	9.18	13.21	44.34	19.53	26.08
1956	5.01	8.95	11.97	40.79	17.96	23.89
1957	6.46	9.67	12.61	46.66	17.50	24.10
1958	7.29	22.71	11.74	37.20	15.45	22.02
1959	7.65	29.51	11.49	32.47	13.89	21.32
1960	7.21	32.88	10.86	28.59	14.06	21.01
1961	7.89	37.28	11.25	27.78	13.94	21.62
1962	8.03	38.14	10.53	25.49	12.88	19.92
1963	7.62	32.10	9.91	26.21	13.56	19.77
1964	7.80	32.29	9.60	25.63	13.70	19.76
1965	8.21	34.59	9.28	28.53	17.04	23.19
1966	9.09	39.52	9.36	27.02	15.71	22.17
1967	7.76	44.04	9.25	25.33	15.24	21.89
1968	8.86	45.50	8.40	23.15	14.05	20.18
1969	9.71	44.95	8.00	25.50	15.87	21.23
1970	9.51	43.73	8.18	25.69	16.70	21.68
1971	11.70	43.46	8.37	24.42	16.25	21.25
1972	10.54	39.35	7.54	25.38	17.63	21.86
1973	10.02	36.82	7.29	24.85	17.56	21.34
1974	12.85	35.84	7.19	22.83	16.45	20.95
1975	14.04	36.02	7.35	23.70	17.20	21.55
1976	13.62	37.04	7.10	24.46	17.95	21.84
1977	13.00	37.01	7.22	21.52	14.96	19.59
1978	13.90	38.07	6.93	21.82	15.80	20.05
1979	14.19	39.27	6.43	20.94	14.29	18.47
1980	16.79	42.51	6.48	20.90	13.87	18.22
1981	17.76	44.09	6.09	19.22	13.08	17.15
1982	16.21	45.64	6.16	17.94	12.34	16.58
1983	17.28	46.55	5.13	17.53	11.75	14.72
1984	17.43	47.72	5.50	17.15	11.21	14.76
1985	20.04	50.30	5.41	16.32	11.15	14.55
1986	21.71	57.19	5.74	15.02	10.32	14.47
1987	22.10	68.80	4.93	14.17	9.46	12.78
1988	22.06	70.95	4.98	13.31	8.82	12.35
1989	22.74	69.96	4.55	13.46	9.21	12.08
1990	21.93	69.88	4.99	11.99	8.36	11.62
1991	24.12	67.31	4.80	13.22	8.88	11.64
1992	23.78	66.04	4.76	12.58	8.35	11.40
1993	26.46	61.91	4.44	10.63	7.51	10.19
1994	30.78	61.92	4.11	11.19	7.35	9.32
1995	32.66	58.18	3.91	10.99	7.86	9.36
1996	34.21	51.17	3.98	10.23	6.90	8.56
1997	32.69	46.83	4.13	8.70	5.43	7.58
1998	33.87	46.07	4.86	8.79	5.38	8.49
1999	35.35	45.25	4.59	8.31	5.14	8.06

## Age structure of the population of the SR in 1999 (mid-year population)

Age	Males	Females	Total	Age	Males	Females	Total	Age groups	Males	Females	Total
Total	2 624 080	2 771 244	5 395 324	Total	2 624 080	2 771 244	5 395 324				
0	28 924	27 625	56 549	50	34 315	35 870	70 185	0	28 924	27 625	56 549
1	29 693	28 189	57 882	51	33 066	34 987	68 053	1 - 4	123 208	117 096	240 304
2	30 412	28 678	59 090	52	29 773	32 122	61 895	5 - 9	190 910	181 720	372 630
3	30 873	29 268	60 141	53	25 973	28 936	54 909	10 - 14	212 471	204 121	416 592
4	32 230	30 961	63 191	54	24 972	28 647	53 619	15 - 19	230 647	221 030	451 677
5	35 373	33 715	69 088	55	24 579	28 271	52 850	20 - 24	241 181	232 721	473 902
6	37 497	35 622	73 119	56	23 452	27 258	50 710	25 - 29	208 129	201 809	409 938
7	38 650	36 929	75 579	57	22 971	27 171	50 142	30 - 34	187 549	183 603	371 152
8	39 692	37 720	77 412	58	22 694	26 888	49 582	35 - 39	198 073	193 594	391 667
9	39 698	37 734	77 432	59	21 669	26 141	47 810	40 - 44	210 506	209 308	419 814
10	40 379	38 734	79 113	60	20 183	25 142	45 325	45 - 49	200 043	203 401	403 444
11	41 248	39 775	81 023	61	19 227	24 260	43 487	50 - 54	148 099	160 562	308 661
12	42 211	40 587	82 798	62	18 504	23 674	42 178	55 - 59	115 365	135 729	251 094
13	43 853	42 023	85 876	63	18 295	23 810	42 105	60 - 64	94 415	120 647	215 062
14	44 780	43 002	87 782	64	18 206	23 761	41 967	65 - 69	86 696	119 974	206 670
15	45 246	43 281	88 527	65	17 788	23 564	41 352	70 - 74	67 827	106 760	174 587
16	45 700	43 491	89 191	66	17 838	24 225	42 063	75 - 79	48 143	85 347	133 490
17	45 755	43 892	89 647	67	17 764	24 508	42 272	80 - 84	16 095	30 899	46 994
18	46 219	44 389	90 608	68	17 069	24 145	41 214	85 - 89	11 407	24 882	36 289
19	47 727	45 977	93 704	69	16 237	23 532	39 769	90 - 94	3 278	7 902	11 180
20	48 623	47 242	95 865	70	15 239	22 841	38 080	95 - 99	938	2 154	3 092
21	48 664	46 823	95 487	71	14 365	22 019	36 384	100+	176	360	536
22	48 651	46 503	95 154	72	13 563	21 376	34 939				
23	47 959	46 296	94 255	73	12 736	20 666	33 402	85+	15 799	35 298	51 097
24	47 284	45 857	93 141	74	11 924	19 858	31 782				
25	45 983	44 541	90 524	75	11 601	19 764	31 365	0 - 17	692 214	661 226	1 353 440
26	43 405	42 357	85 762	76	10 952	19 249	30 201	18+	1 931 866	2 110 018	4 041 884
27	41 064	39 939	81 003	77	9 985	17 996	27 981				
28	39 417	38 018	77 435	78	8 525	15 424	23 949	0 - 2	89 029	84 492	173 521
29	38 260	36 954	75 214	79	7 080	12 914	19 994	3 - 5	98 476	93 944	192 420
30	36 827	35 774	72 601	80	4 690	8 624	13 314	6 - 14	368 008	352 126	720 134
31	36 164	35 135	71 299	81	2 736	5 129	7 865				
32	36 938	36 186	73 124	82	2 597	4 943	7 540	0 - 14	555 513	530 562	1 086 075
33	38 145	37 695	75 840	83	2 720	5 431	8 151	15 - 59M/54F	1 739 592	1 606 028	3 345 620
34	39 475	38 813	78 288	84	3 352	6 772	10 124	60+ M/55+ F	328 975	634 654	963 629
35	40 093	39 144	79 237	85	3 401	6 908	10 309				
36	39 227	38 246	77 473	86	2 789	5 899	8 688	15 - 49 F		1 445 466	
37	39 024	38 301	77 325	87	2 190	4 812	7 002				
38	39 855	39 078	78 933	88	1 655	3 907	5 562	Structure (%)			
39	39 874	38 825	78 699	89	1 372	3 356	4 728	0 - 14	21.17	19.15	20.13
40	40 521	39 620	80 141	90	1 091	2 640	3 731	15 - 59M/54F	66.29	57.95	62.01
41	42 060	41 276	83 336	91	802	1 902	2 704	60+ M/55+ F	12.54	22.90	17.86
42	42 857	42 569	85 426	92	585	1 418	2 003				
43	42 779	43 220	85 999	93	453	1 092	1 545				
44	42 289	42 623	84 912	94	347	850	1 197				
45	41 804	41 845	83 649	95	259	658	917				
46	41 492	41 778	83 270	96	212	503	715				
47	40 903	41 636	82 539	97	182	385	567				
48	39 366	40 381	79 747	98	126	278	404				
49	36 478	37 761	74 239	99	159	330	489				
				100+	176	360	536				

## Age structure of the population of the SR in 1999 (population on 31 December)

Age	Males	Females	Total	Age	Males	Females	Total	Age groups	Males	Females	Total
Total	2 625 126	2 773 531	5 398 657	Total	2 625 126	2 773 531	5 398 657				
0	28 489	27 342	55 831	50	34 469	36 021	70 490	0	28 489	27 342	55 831
1	29 254	27 810	57 064	51	33 823	35 599	69 422	1 - 4	121 005	114 794	235 799
2	30 068	28 506	58 574	52	31 985	34 285	66 270	5 - 9	187 663	178 745	366 408
3	30 686	28 780	59 466	53	27 256	29 878	57 134	10 - 14	209 823	201 513	411 336
4	30 997	29 698	60 695	54	24 385	27 910	52 295	15 - 19	228 762	219 004	447 766
5	33 407	32 162	65 569	55	25 176	29 283	54 459	20 - 24	241 822	233 622	475 444
6	37 271	35 217	72 488	56	23 638	27 140	50 778	25 - 29	212 883	206 337	419 220
7	37 663	35 973	73 636	57	22 910	27 249	50 159	30 - 34	186 246	182 243	368 489
8	39 577	37 822	77 399	58	22 629	26 964	49 593	35 - 39	198 227	193 957	392 184
9	39 745	37 571	77 316	59	22 345	26 642	48 987	40 - 44	208 902	207 503	416 405
10	39 601	37 876	77 477	60	20 553	25 459	46 012	45 - 49	203 102	206 195	409 297
11	41 132	39 575	80 707	61	19 355	24 639	43 994	50 - 54	151 918	163 693	315 611
12	41 368	39 993	81 361	62	18 617	23 690	42 307	55 - 59	116 698	137 278	253 976
13	43 058	41 201	84 259	63	17 878	23 471	41 349	60 - 64	94 544	121 160	215 704
14	44 664	42 868	87 532	64	18 141	23 901	42 042	65 - 69	86 149	119 147	205 296
15	44 924	43 186	88 110	65	17 689	23 306	40 995	70 - 74	67 904	106 967	174 871
16	45 584	43 407	88 991	66	17 254	23 499	40 753	75 - 79	48 561	86 731	135 292
17	45 834	43 609	89 443	67	17 783	24 521	42 304	80 - 84	16 605	31 794	48 399
18	45 662	44 190	89 852	68	17 057	24 086	41 143	85 - 89	11 527	25 110	36 637
19	46 758	44 612	91 370	69	16 366	23 735	40 101	90 - 94	3 311	8 019	11 330
20	48 675	47 368	96 043	70	15 343	22 865	38 208	95 - 99	808	2 016	2 824
21	48 555	47 118	95 673	71	14 417	22 273	36 690	100+	177	361	538
22	48 746	46 545	95 291	72	13 499	21 189	34 688				
23	48 557	46 457	95 014	73	12 865	20 932	33 797	85+	15 823	35 506	51 329
24	47 289	46 134	93 423	74	11 780	19 708	31 488				
25	47 271	45 587	92 858	75	11 225	19 234	30 459	0 - 17	683 322	652 596	1 335 918
26	44 667	43 494	88 161	76	11 052	19 381	30 433	18+	1 941 804	2 120 935	4 062 739
27	42 123	41 223	83 346	77	9 991	18 157	28 148				
28	39 997	38 677	78 674	78	9 168	16 765	25 933	0 - 2	87 811	83 658	171 469
29	38 825	37 356	76 181	79	7 125	13 194	20 319	3 - 5	95 090	90 640	185 730
30	37 678	36 563	74 241	80	6 365	11 763	18 128	6 - 14	364 079	348 096	712 175
31	35 981	34 986	70 967	81	2 699	5 074	7 773				
32	36 322	35 293	71 615	82	2 496	4 795	7 291	0 - 14	546 980	522 394	1 069 374
33	37 535	37 099	74 634	83	2 333	4 617	6 950	15 - 59M/54F	1 748 560	1 612 554	3 361 114
34	38 730	38 302	77 032	84	2 712	5 545	8 257	60+ M/55+ F	329 586	638 583	968 169
35	40 189	39 320	79 509	85	3 449	7 085	10 534				
36	39 954	38 968	78 922	86	2 815	5 863	8 678	15 - 49 F		1 448 861	
37	38 467	37 532	75 999	87	2 291	5 057	7 348				
38	39 532	39 056	78 588	88	1 703	3 798	5 501	Structure (%)			
39	40 085	39 081	79 166	89	1 269	3 307	4 576	0 - 14	20.84	18.83	19.81
40	39 559	38 546	78 105	90	1 141	2 724	3 865	15 - 59M/54F	66.61	58.14	62.26
41	41 320	40 673	81 993	91	819	2 006	2 825	60+ M/55+ F	12.56	23.02	17.93
42	42 643	41 873	84 516	92	582	1 382	1 964				
43	42 916	43 238	86 154	93	427	1 087	1 514				
44	42 464	43 173	85 637	94	342	820	1 162				
45	41 927	42 010	83 937	95	248	650	898				
46	41 453	41 612	83 065	96	189	500	689				

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