


POLISH ACADEMY OF SCIENCES
STANISLAW LESZCZYCKI
INSTITUTE OF GEOGRAPHY AND SPATIAL ORGANIZATION
CENTRE FOR EUROPEAN STUDIES

EUROPA XXI

7



Slovakia and Poland
Urban, social and demographic questions
Relations between neighbours



WARSZAWA 2002

EUROPA XXI

Polska Akademia Nauk
Instytut Geografii
i Przestrzennego Zagospodarowania
im. Stanisława Leszczyckiego
Centrum Studiów Europejskich

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ISSN- 1429-7132

EUROPA XXI jest wydawnictwem Instytutu Geografii i Przestrzennego Zagospodarowania im. *Stanisława Leszczyckiego* PAN, w którym od 1997 r. działa Centrum Studiów Europejskich (CSE). Zgodnie ze schematem organizacyjnym Instytutu, obowiązującym od 1 lipca 2001 r., CSE jest *międzyzakładowym zespołem studyjnym*, stanowiącym bezpośrednie zaplecze wydawnictwa EUROPA XXI. Pozycję wydawnictwa umacnia ogólnopolska Rada Redakcyjna, powołana z dniem 7 marca 2001 r.

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The goal of the bulletin is to promote and disseminate the results of research on: spatial aspects of socio-economic processes taking place in Europe, in particular in Central and Eastern Europe, spatial changes resulting from Poland's integration with the EU as well as Poland's interrelations with the neighbouring countries.

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CENTRE FOR EUROPEAN STUDIES
POLISH GEOGRAPHICAL SOCIETY
ACADEMIC UNIT

EUROPA XXI

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Slovakia and Poland Urban, social and demographic questions Relations between neighbours

Edited by
Tomasz Komornicki
Halina Powęska



WARSZAWA 2002

<http://rcin.org.pl>

Volume reviewed by
Tadeusz Palmowski

*Volume co-financed
by the State Committee for Scientific Research*

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Poland and Slovakia – neighbours in Central Europe

Introduction

Ewa Korcelli-Olejniczak

With the beginning of the 21st century, European integration has entered the stage of “intensification” and internal reforms within the present borders of the European Union, and at the same time the stage of “enlargement” towards the East. In the face of global challenges and threats, the Eastern and Western parts of the continent put forth all sources of their integrative force. The calculation of economic profits, which at the end of the previous century shaded the idealistic foundation of European integration, today has to compete with political slogans, as the “renaissance of politics” becomes a fact (Kleinert, Mosdorf 1998). The revival of political arguments was still intensified by the events of September 11, 2001. The enlargement of the EU to the East is to be instrumental to the strengthening of democracy in the countries of Eastern and Central Europe, so that this part of the continent becomes a region of political and economic stability. This intention seems particularly important in the face of global menaces.

In the face of the EU-Enlargement to the East, Central Europe is becoming a region, which draws particular attention. It is a region, which undergoes fundamental changes, gradually fulfilling the conditions of accession, transforming its socio-economic space, conforming itself to the new position. It is a strongly differentiated region, at the same time revealing a distinct homogeneity through the similarity of its features. It is therefore an important scientific task to follow these processes, also from the comparative viewpoint, seeking differences and analogies, considering both the cognitive and practical usability of the knowledge, which may serve the solution of problems present in the countries of this region.

According to the intentions of the Editors and especially the first Editor-in-Chief of this bulletin Professor Marcin Rościszewski, one of the goals of the series EUROPA XXI, is tracing spatial changes and questions of transformation in East and

Central Europe. These phenomena are to be followed both in the general context of processes taking place on the European continent and in the context of the integration of Central Europe with the European structures.

One of the most important goals of EUROPA XXI, as pointed out in the editorial note on the front page of the bulletin, is to follow “the development of (Poland’s) co-operation with the neighbouring countries”, both from the angle of European integrative processes and the domestic and regional problems of the countries concerned.

Therefore, to conform to this task, the bulletin EUROPA XXI for the first time ventures into the issue of neighbourly co-operation and links between Poland and Slovakia.

On April 17-19, a Polish-Slovak seminar took place at the Institute of Geography and Spatial Organization, on the *Changes in the socio-economic space in Poland and Slovakia on the eve of the XX and XXI century*. The papers presented at the seminar constitute the basis of the present issue of EUROPA XXI. Comprehensive articles by Polish and Slovak authors focus in particular on change in the urban, social and demographic space. The similarities and analogies in the processes taking place in Poland and Slovakia, the need to combine efforts in seeking solutions of problems regarding both countries and finding ways to strengthen neighbourly relations between Poland and Slovakia, and finally the careful look at these problems from the broad perspective of European integration, are only some of the aspects of future studies, the urgent need of which is revealed by this volume. A special place should be occupied here by comparative studies, which define the plane of competition and the development of complementary functions between Poland and Slovakia in the region.

Obviously, the intensification of scientific contacts in the field of geographical studies between the two countries, which the seminar made

possible, will surely result in further research initiatives. An important aim of such studies is surely the development of regional consciousness, in the supranational meaning of the notion. The development of international co-operation, positive competition and complementary functions, which may support the development of particular functions, can contribute to the consolidation of the position of Poland and Slovakia in the region of Central Europe, and at the same time the consolidation of the role of Central Europe in the European Union of tomorrow.

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On the need and significance of co-operation between Polish and Slovak geographers

Tomasz Komornicki, Halina Powęska

The political and economic transformations, which took place in Central Europe in the 1990s contributed to the increased interest from the side of the geographical sciences in the broadly understood problem of neighbourhood between the countries of this part of the continent. The economic and social bilateral contacts, and in particular – the cross-border co-operation – became the subject of study. At the same time, already in the first years after 1989, numerous differences between the countries of the former eastern block appeared, and the processes of transformation turned out to have their very significant regional dimension (also within the confines of particular countries).

In the case of Poland and Slovakia we can speak of, in particular, the differences as to the economic development level, the manner of perceiving and classifying the socio-economic phenomena, the spatial development, and the forms and structures of ownership. The observation and the overcoming of these differences, and, with time, use made of them for economic purposes, caused that Slovaks and Poles would increasingly often become direct partners (like in the cases of tourism and petty trade). Such personal contacts played a very important role in the renewed mutual cognition and in breaking of the barriers, which arose between the two nations during the 50 years of the socialist rule. These contacts were most intensive within the borderland, although they also took place, at a lower level of intensity, farther from the common border.

The mutual relations between Poland and Slovakia, as the two countries aspiring to the membership in the European Union, seem to be very important from the point of view of the new geopolitical situation in the Central and Eastern Europe. That is why the problems associated with the neighbourhood of our countries entered the domains of interest of the research centres, as well as the governmental and non-governmental organisations. The Polish-Slovak borderland was

the subject of more detailed studies conducted, in particular, at the Institute of Geography and Spatial Organization of the Polish Academy of Sciences (see, for instance, the series of “The foundations of development of the western and eastern border areas of Poland”, 1993-1996, and *Geopolitical Studies*).

The shape of co-operation within the Polish-Slovak borderland, both in the field of economy and in the resolution of the social problems, may have the significance as a potential model for the entire region of Central and Eastern Europe, in view of the experience of the cross-border collaboration in construction of mutual relations in the past (Jakubowski, 1993). The legal act, which regulated already in the year 1925 the cross-border collaboration within the Polish-Slovak borderland, was the Convention, signed in Prague between the Republic of Poland and the Republic of Czechoslovakia, on the facilitation of the small cross-border traffic. The analysis of the text of this convention indicates that it can serve as an example of the high degree of integration of the communities inhabiting the borderlands. The convention regulated numerous questions concerning everyday situations, like, in particular, use of medical service, of the fire brigade service, as well as transport of yields harvested abroad. Thus, the idea of the cross-border collaboration, referred to through the notion of the Euroregions, attributed to Western Europe and the years after the World War II, had its earlier roots in our part of the continent.

From the economic perspective, the key direction of international connections, both in Poland and in Slovakia, is still the East-West direction (earlier – in association with the ties to the economic space of the Soviet Union, currently – mainly with the European Union). At the same time, though, from the point of view identification of Central Europe as a region, the North-South relations are extremely important. This is

emphasised by, in particular, J. Korolec (1997), in the context of analysis of the most important problems of the Polish-Slovak borderland. The author mentioned, when outlining the possibilities and the co-operation fields for the local communities, indicates the potentially integrating influence of the Carpathian Mts., which, even if constituting the line of political division, are at the same time the area of mutual interpenetration of cultures. The communities of the Polish-Slovak borderland, while preserving their specific separate national character, were always close to each other. This observation is confirmed by the fact of establishment, already in June 1922, of the International Association of the Slovak-Polish Communes of the Beskidy Region, with the seat in Rajcza (A. Iwanek, 1995). Nowadays, there are two bilateral Euroregions functioning within the Polish-Slovak borderland (Tatra and Beskidy), and the eastern part of this area constitutes the fragment of the Carpathian Euroregion.

Carpathian Mts., as a geographical region, constitute an important element in the Slovak-Polish collaboration, since these mountains are one of the most important tourist regions in both countries. A detailed analysis of the tourist development (Więckowski, 2002) within the Polish-Slovak borderland indicates that the systems of tourist infrastructure (the course of tourist routes) and of the transport infrastructure (the course of roads and the border crossings) on both sides of the border frequently hamper the development of cross-border tourism. It appears that intensification of the cross-border contacts is from this point of view deeply justified also for economic reasons.

The undertaking of collaboration in the domain of tourism in the Carpathians shows the possibilities of development, based upon mutual contacts, while simultaneously uncovering the multiplicity of the still existing differences and barriers. The differences are the consequence of the many years of lack of cross-border contacts, but also of the different characteristics of our countries (Kozanecka, 1996). They stem, in particular, from the magnitude and competence of the administrative units, the demographic potential, employment and agrarian structures. Then, in terms of affinities, one should mention the demographic youth, the high nature and landscape potential, as well as the diversity and richness of the cultural traditions.

The analysis of problems related to the Polish-Slovak neighbourhood, brings the cognitive,

but also applied results, since the exchange of thoughts, smoothing out of the differences, as well as development of co-operation, lead to the improvement of the economic relations, and thereby – to the economic growth.

* * *

Until 1989 the Polish-Slovak contacts in the fields of geography and regional studies were inscribed into the framework of the official collaboration with the Czechoslovak research centres. Joint seminars were held, in which Slovak geographers actively participated, especially from the centres in Bratislava and Banská Bystrica. During the 1990s the contacts were continued by some of the regional centres in both countries (from the Polish side – by, for instance, the University of Warsaw and the Pedagogical Academy in Cracow). Collaboration was also continued at the level of individual scholars.

The close collaboration at the level of the institutes of geography of the Polish and Slovak academies of sciences (Geografický Ústav Slovenskej Akadémie Ved) was brought back in the new geopolitical and socio-economic conditions only in 1998. The initiative of the reactivation of the co-operation came from the Slovak side, with active participation of the Director of the Institute – Professor Anton Bezák, and the main organiser – Dr Vladimír Székely. On the Polish side the renewed co-operation found the most ardent support from the side of the late Professor Marcin Rościszewski.

In June 1998 the agreement was signed on co-operation between the two respective institutes concerning the research work on the subject of “Socio-geographical aspects of the development of new regional structures in Poland and Slovakia”. Then, on 23-25 April 2001, in Bratislava, the first bilateral Polish-Slovak scientific seminar was held after ten years of break, entitled “Geographical research of local and regional structures in Poland and Slovakia”, organised by the Institute of Geography of the Slovak Academy of Sciences (SAN). The Polish side was represented at the seminar by the scholars from the Institute of Geography and Spatial Organization of the Polish Academy of Sciences (Professor Piotr Eberhardt, Dr Bożena Degórska, Dr Tomasz Komornicki, Dr Marek Więckowski, and Dr Mariusz Kowalski).

During the technical session of the seminar nine papers were presented. A group of papers were

devoted to the issues of land use and nature protection (Dr Bożena Degórska and Professor Jan Feranec), to demographic questions (Dr Peter Podolák), and the ethnic ones (Professor Piotr Eberhardt). In particular, an interesting regularity was indicated that the areas featuring high natural increase in Poland and in Slovakia neighbour across the border, forming in the Carpathian Mts. one compact region of demographic vitality. A lively discussion was also caused by the issue of transformations in the ethnic structures of the two countries. It was emphasised that contrary to the commonly held opinions the main conflicts having ethnic background occur in Slovakia not in the case of the Hungarian minority, but of the Gypsies. Dr Anton Michálek presented the spatial differentiation of the "Human development index" values on the territory of Slovakia. The analysis showed a clear spatial image of the socio-economic development of Slovakia. Thus, the decisively most developed parts of the country are Bratislava (the index level close to that of the EU average) and the valley of Vah river, with the values of the index distinctly decreasing towards the East. Dr Vladimír Székely presented the controversies associated with the location of the Technological-Scientific Park in Bratislava. Polish side contributed also with two papers concerning directly the problems of the Polish-Slovak relations. Thus, Dr Tomasz Komornicki spoke of the geography of the Polish-Slovak socio-economic ties, while Dr Marek Więckowski – of the Polish-Slovak cross-border collaboration. The material and the conclusions contained in the papers confirmed that the highest intensity of mutual contacts is concentrated within the borderland areas, first of all in the regions of Tatra Mts., Podhale, Spisz and Orawa. The papers of the participants of this seminar were published by the Slovak side in the journal *Geografický Časopis* (2002).

The subsequent bilateral seminar, entitled "Changes in the socio-economic space in Poland and Slovakia at the turn of the centuries", was held in Warsaw on 17-19 April 2002. This seminar was organised, side by side with the Institute of Geography and Spatial Organization of the Polish Academy of Sciences, also by the Academic Chapter of the Polish Geographical Society. There were four guests from Bratislava, who came to the seminar: Professor Anton Bezak, Dr Vladimír Székely, Dr Peter Podolák and Dr Anton Michálek. The technical session was composed of ten papers.

They concentrated around three fundamental issues: the transformations of the demographic and population structures in Slovakia during the 1990s, the transformation of the urban space in the countries of Central Europe, and the spatial dimension of the Polish-Slovak neighbourhood.

The first group consisted of the papers devoted to the ageing processes and the age structure (P. Podolák, A. Michálek), the problems of internal migration (A. Bezak), and of unemployment (V. Székely). Attention was paid to the fact that the spatial differentiation of the demographic and migration processes underwent during the 1990s essential transformation. The polarisation processes, differentiating the situation of Bratislava and – though to a lesser extent – also of Košice from that in the rest of the country, got importantly intensified.

The papers devoted to the urban space had a more cross-sectional character and were devoted to the new dimensions of the spatial differentiation of towns (G. Węclawowicz), and to the problem of sustainable development within urban areas (B. Degórska). It was shown that the social and economic transformations of the 1990s brought the increase of differentiation also on the local scale of the large urban agglomerations. The dynamic process of spatial urbanisation of the largest towns and suburban areas takes place in a chaotic manner, frequently in conflict with the principles of nature protection.

The last group of papers comprised the presentations concerning, in particular, the personal contacts of the inhabitants of Poland with Slovakia (Slovakia being, side by side with Czech Republica and Germany, among the countries most frequently visited by Poles; T. Komornicki), the new, and at the same time the common Polish-Slovak tourist space of the Western Carpathians (M. Więckowski), as well as the cultural specificity of the Polish fragments of the historical regions of Spisz and Orawa (M. Kowalski).

At the occasion of both seminars the study trips were also organised, showing the transformations of urban areas and suburban zones of Bratislava (2001) and Warsaw (2002). During the second seminar a meeting was held with the self-governmental authorities of the county of Piaseczno, one of the Polish counties featuring the highest intensity of international connections.

The papers delivered at the second seminar became the basis for the majority of the articles

published in the present volume. The articles constitute an image of the demographic, settlement and social transformations in both countries in the period of transformations. The scope and distribution of subjects they touch shows a kind of complementarity between the research conducted in the two collaborating centres. Simultaneously, a very clear need – expressed also in the discussions held during the two seminars – arose of the close Polish-Slovak scientific collaboration, including very concrete joint studies. The potential subjects would first of all concern the geographical aspects of the neighbourhood of the two countries and the spatial dimension of the integration processes taking place in front of our eyes (which is often different in conditions of the small and large countries aspiring to the membership in the European Union).

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Part I

Social and demographic questions

Part 1

Social and demographic questions

Interregional migration in Slovakia, 1981-1998

Anton Bezák

Introduction

Slovakia, like other post-communist countries of Central and Eastern Europe, has been subject to radical transformation of its political system, economic structure, and social relations after 1989. Migration is generally considered a very good indicator, which sensitively responds to political, social, and economic changes. It is, then, possible to expect that the changes, which took place in Slovakia during the 1990s, will also find their reflection in the volume, structure, and spatial distribution of migration within the country.

The aim of this study is to provide interpretation of the changing pattern of internal migration in Slovakia during the 1981-98 period at the interregional scale. After a brief discussion of the data set and regional system used in the analysis, three aspects of migration dynamics will be investigated. Firstly, the basic trends of internal migration in general and interregional migration in particular will be examined. Then the spatial pattern of interregional migration will be analyzed with particular attention given to changes in regional differences in net migration. Finally, differential changes in in-migration and out-migration components of the migration balance responsible for the net migration pattern will be evaluated.

Migration data and the regional system

The migration data used in this study were obtained from the records of the current registration of population as processed by the state statistical service. The 1981-91 data were taken from the basic source material *Pohyb obyvateľstva* (Population Movement) published annually by the Federal Statistical Office of former Czechoslovakia. The 1992-98 data were extracted from unpublished tabulations provided by the Statistical Office of the Slovak Republic, while all

information concerning migration in the 1996-98 period is the result of the author's own processing of anonymized primary records on internal migration. It should be noted that the population registration in Slovakia is based on registration of what are referred to as demographic events. Therefore, the number of migration during a given year does not agree with the number of persons who moved in this year as some migrants can move several times in the course of the period. Note also that data on the population of Slovakia and its constituent regions (mid-year populations) used for calculation of migration rates were also obtained from the current registration of population.

Internal migration is defined in the population registration as a change of permanent residence between two communes within the state. It follows from the definition that the number of communes, which can change by aggregation and division in the course of time, also influences the level of internal migration. This fact is often responsible for creating not perfectly comparable time series of migration volume and rate. It is useful to recall that there were 2,725 communes in Slovakia at the beginning of the study period. This number declined to 2,672 in the 1980s and increased again to 2,878 by the end of 1998. Another source of inconsistency in migration data is attributable to intraurban movement. As a matter of fact, the volume of internal migration reported by the statistical offices includes also the movement between city districts within Bratislava since 1976 and between city districts within Košice since 1992. Moreover, the registration of intraurban migration was later (in Bratislava since 1992 and in Košice since 1996) extended further to cover the movement between city wards. In order to obtain at least partial consistency in internal migration data, only the change of permanent residence by moving from one commune to another will be considered migration, leaving out the movement within the two Slovak metropolises. For this reason considerable

differences exist between the published figures and the revised figures used in this study.

In addition, it should be noted that the term internal migration concerns exclusively the movement between communes in Slovakia. This is the reason why international migration and migration between Slovakia and Czechia were not taken into account in calculations of migration characteristics. In order to eliminate the influence of random factors and to obtain relatively stable migration characteristics, the period under investigation was divided into six three-year intervals, namely 1981-83, 1984-86, 1987-89, 1990-92, 1993-95, and 1996-98. All migration characteristics were then computed for the individual three-year periods as the mean annual values or mean annual rates. Particular attention will be given to the 1987-89 period, which concludes a specific stage in the development of migration system and the 1996-98 period, for which the most recent data are available.

Interregional migration is here defined as movement between the former administrative districts existing in Slovakia before 1996. In order to facilitate comparisons among districts, each of the districts of Bratislava and Košice was amalgamated with its rural counterpart into one metropolitan district, so that the number of districts used in the analysis was reduced from thirty-eight to thirty-six. As the 1981-95 data on migration between the former districts cannot be transformed into other regional division, the selected regional framework provides practically the only possible way to capture the regional dimensions of internal migration dynamics in Slovakia during the last twenty years. This, however, does not mean that the selected regional system is ideal. Its essential drawback is that the districts as territorial units delimited for the needs of the local administration do not respond to the functional regional units suitable for the analysis of migration processes. Another disadvantage of the districts is their large size, which causes disproportionate increase of the number of intraregional migrations and inadequate reduction of the number of interregional migrations. The 36-region system used in this study is shown in Figure 1.

Finally, it is worth mentioning that distances between the districts required for computation of the mean length of interregional migration were measured as the road distances between the district centres. Corresponding values

expressed in kilometres were taken from the military road atlas (Kontra 1995).

The overall level of internal migration

Migration differs from other components of population dynamics by the fact that it often becomes the object of ideological, political, and economic interventions of the state and its institutions (Boyle et al. 1998, pp. 153-179). The development of migration processes in the territory of the former Czechoslovakia after 1948 was highly influenced by the deforming effects of the directive planning system under the communist regime. The ways of its application were considerably differentiated. While the drastic forms of displacement and imposed place of residence were not exceptional in the late 1940s and 1950s, indirect methods were used from the beginning of the 1960s and a considerable part of internal migration was directed by means of centrally planned distribution of housing construction. The principal motive of movement was the possibility to acquire the dwelling from the state at the beginning, then from the factory and eventually from the co-operative housing organizations. It is not surprising, therefore, that as much as 49 % of migrants in Slovakia quoted "change of dwelling" as the main reason of movement even in the 1986-88 period (Srb 1991).

The level and directions of internal migration in the 1970s and 1980s were strongly affected by two important factors (Kučera 1994, pp. 68 and 141-142). The first was the planned inter-district transfers of population from districts with a surplus of labour force into the districts of labour force shortage, which were performed on the basis of so-called "perspective labour force balances". These transfers were then included into the perspective balances of needed dwellings, which meant that housing construction was supported in the in-migration districts and restrained in the out-migration districts. Some of the planned transfers were motivated by the apparently objective need to compensate for regional differences in natural reproduction of population, but not a small part of them reflected different voluntaristic intentions concerning the "priority development" of some cities or selected areas. Regional differences in net migration were therefore caused not only by natural differentiation of attractiveness of the individual regions, but also by various questionable

preferences and compensations (Hampl and Kühnl 1993).

Another factor, which has heavily influenced the spatial structure of internal migration especially in Slovakia, was realization of conceptions associated with the so-called centre-forming settlement system. Following the Projekt urbanizácie SSR (Urbanization Project of the Slovak Socialist Republic), housing construction was preferably distributed into "central communes" and "centres of district importance". This mechanism progressively led to enclosure of migration movements into the framework of relatively small regional units approximately at the level of the former districts and with regard to the high number of centres of district importance (77) often below the district level. As a result, internal migration lost its regional selective function and gained a specific concentrating character (Hampl and Kühnl 1993). It is evident that in such a spatial framework mainly the districts with centres of a higher order could display positive migration balances. It is worth mentioning in this context that the Urbanization Project considered, quite unreasonably, all three former seats of regional administration (namely, Bratislava, Košice, and Banská Bystrica) to be equivalent metropolitan centres, which resulted in indiscriminate overestimation of Banská Bystrica's importance (Bašovský 1995).

Generally speaking, at the beginning of the study period the level of internal migration in Slovakia was comparatively stabilized. The end of the 1970s and the first half of the 1980s were the periods in which the extensive stage of urbanization of Slovakia characterized by both absolute and relative increase of urban population culminated. The dominant forms of migration movements were the one-way and unusually strong flows from rural areas to urban and industrial centres. The internal migration at the turn of the 1970s and 1980s reached massive dimensions almost equalling the large population movements in the 1951-54 period. As data from Table 1 suggest, in the years 1981-86 more than 100 thousand persons changed the commune of permanent residence annually, which means about 20 moves per 1,000 inhabitants. Meanwhile, out of the total migration 61% corresponded to shorter distance movements between communes within the same region and the remaining 39% were longer distance movements between communes in different regions.

Since 1986, however, first a slow and later an accelerating decline of the level of internal migration in both absolute and relative terms can be observed. The total migration decreased by 31% to 71 thousand in 1998 and the mean annual rate of movement even fell by more than a third to 13.2‰ in the same year. Similar trends in migration mobility were observed in the Czech Republic, where the rate of internal migration decreased from 22.2‰ in the 1981-85 period to 16.3‰ in 1997 (Čermák 1999).

As regards the structure of internal migration during the period under investigation, some important changes can be reported. In the 1981-92 period the volume of interregional migration substantially decreased, whereas the volume of intraregional migration was maintained at approximately the same level. Consequently, the proportion of internal migration occurring within regions progressively grew and reached its maximum of 64% in the years 1990-92. Since 1993 both components of internal migration are decreasing in their volume and rate. It is interesting, however, that their ratio slowly changed in favour of movement between regions, which represented in the last three-year period as much as 38.6% of the total volume of internal migration. It should be noted that the increase of the proportion of interregional migration is in fact even more pronounced as it is accompanied by division of communes and consequently by increase of statistically recorded moves within the regions.

All these findings indicate that the process of reduction of the overall level of migration mobility in Slovakia did not stop after 1989 and in spite of expectations it continued at an unchanged rate until the present time. Paradoxically, neither extension of the old nor creation of the new regional disparities led to revival of migration mobility. This phenomenon can be explained by several very general and tentative hypotheses. The gradual decrease of the total volume and intensity of internal migration can in large extent reflect the immanent inertia of the migration system. The distinct decrease of the volume and relative importance of intraregional migration probably also occurs in harmony with the fading-out of extensive forms of the development of settlement system. Another explanatory factor is possibly the increase of some complementary forms of spatial mobility, which are not associated with the change of the place of permanent residence (for example,

commuting). The acute shortage of dwellings probably forces people working in urban areas to use the existing rural housing stock, especially in the easily accessible suburban zones of the great cities. Naturally, the possible increasing incidence of failures to report changes of permanent residence cannot be excluded either.

The decisive role in the decrease of migration mobility, however, is played by the unfavourable situation in housing, caused above all by the dramatic reduction of dwelling construction after 1989. While as many as 36.8 thousand dwellings were built annually in the 1981-85 period, only 7.2 thousand completed dwellings were delivered annually in the years 1996-98 (cf. Statistical Yearbooks of Czechoslovakia or Slovakia for the corresponding years). Apart from the decreased level of housing construction, various other factors also contribute to the fact that the housing question remains unsolved. The most important amongst them are the high prices of free flats, problems connected with the ownership relations, and the absence of an adequate legislative framework, which might make possible functioning of the actual housing market. From this point of view, the development of internal migration in Slovakia has got a lot in common with the development of migration systems in the other post-communist countries of Central Europe (Čermák 1996, 1999).

Basic characteristics of interregional migration

The general picture of the development of internal migration in Slovakia in the course of the 1980s and 1990s can be completed by several additional summary characteristics, which are immediately associated with interregional migration (see Table 2). As suggested in the previous section, the average volume of interregional migration stabilized in the 1981-86 period approximately at the level of 41 thousand annually. Then it consistently declined and dropped to 27.4 thousand annually in the years 1996-98, that is by a third of the level at the beginning of the 1980s. With regard to the moderate increase of the Slovak population the mean annual rate of interregional migration decreased more regularly from about 8 per thousand to 5 per thousand during the study period.

Concerning the mean length of interregional migration, it is worth mentioning that

the number of short-distance moves (below 100 km) dropped most during the period under consideration. The decline of the medium-distance moves (101-200 km) was considerably lower and the least decrease of the total number of interregional moves was recorded in the case of movement over long distances (more than 200 km). Consequently, the proportion of the long-distance movement in the total volume of interregional migration rose from 12.8 % in the 1981-83 period to 13.7 % in the 1996-98 period. The overall effect of these changes is that the mean length of interregional migration increased from 103 to 106 km. Thus, it can be stated, with certain degree of simplification, that in Slovakia over the period under investigation, at the interregional level, and on the average, fewer and fewer persons are migrating over greater and greater distances. The general trend of decline in the frictional effect of distance on the volume of interregional migration flows is also confirmed by other studies (for example, Bezák 2000).

Migration is essentially a two-way (or reversible) spatial movement. There is usually a migration flow in the opposite direction along with the migration flow in any direction, while both flows can compensate each other with various effects. Useful insights into the degree of such compensation can be gained using measures of migration effectiveness or efficiency. These measures simply indicate the percentage of the total volume of migration, which leads to redistribution of population. A summary measure of system effectiveness (Plane 1994) is defined as an index in which the absolute values of the net migration balances for all areas are summed and divided by the double of the total migration in the system. As Table 2 shows, the system effectiveness of interregional migration dramatically declined after 1987. Whereas in the 1981-86 period on the average a sixth of the total migration contributed to population redistribution at the regional level, only 6 % of total migration had the same effect during the last three-year period. Note that in absolute numbers less than 3,200 moves annually participated in redistribution of population at the end of the study period.

Parallel to the decrease of system efficiency, the rapid increase of migration flows in the opposite direction can be observed after 1989. This can be proved by evaluating the symmetry of the migration flow matrices corresponding to all the

three-year periods considered, using the correlation coefficient between the elements of the migration matrix and the elements of the matrix transposed to the original matrix (cf. Hubert and Baker 1979). As shown in Table 2, during the 1990s the correlation increased considerably, indicating that the migration flows in opposite directions tend to equalize. The last quantitative characteristic concerns the level of concentration of interregional migration flows. It is derived from two entropy statistics, referred to as row and column entropy, which measure the homogeneity row and column totals in a migration flow matrix (Berry and Schwind 1969). Higher row entropies than column entropies suggest that migration tends to be spatially focused on certain destination regions (Plane and Rogerson 1994, pp. 105-106). On the basis of this premise, the index of migration concentration can be defined as the proportion of row and column entropies. As shown, the index values are obviously larger than one and indicate the moderate but constant trend toward a less concentrated pattern of interregional migration during the whole study period.

Regional differences in net migration

The summary characteristics of interregional migration provide only overall information on migration system, which can mask significant cross-regional differences in migration mobility. In order to examine how the overall trends observed at the national scale varied spatially, the changes in the regional pattern of net migration will now be analysed in some detail.

In the period under investigation dramatic changes occurred in regional distribution of net migration. In the 1980's migration system was characterized by comparatively stable and highly centralized spatial pattern. Net migration gains were concentrated in about 7-8 regions, while the remaining 28-29 regions displayed as a rule long-term net migration losses. What is particularly interesting, however, is that the districts of the three former regional administrative centres accounted for more than 80 % (in the 1987-89 period even 92 %) of the total sum of positive migration balances. The mean annual gain due to interregional migration in the years 1981-89 amounted to almost 3800, 950 and more than 750 persons in the districts of Bratislava, Košice, and Banská Bystrica respectively. Apart from that,

permanent though much lower net migration gains were recorded only in the heavily industrialized districts of Martin and Považská Bystrica. In the first third of the 1980's some rather important gains were experienced in the districts of Dunajská Streda and Veľký Krtíš. In addition, during the 1987-89 period also the district of Levice joined the districts with positive migration balances, above all in connection with the construction of a nuclear power plant in the village of Mochovce (cf. Jurcová 1996).

Districts with negative migration balances were distributed all over Slovakia without any distinct spatial concentration. The largest net migration losses (more than 250 persons annually) during the 1980's were recorded by the districts of Spišská Nová Ves, Čadca, Topoľčany, Trebišov, Nitra, Trenčín, Dolný Kubín, and Trnava. Lower, but still important losses were also experienced by the districts of Komárno, Michalovce, Ziar nad Hronom, Vranov nad Topľou, and Rimavská Sobota. Note that some economic causes and demographic consequences of this negative population development were analysed by P. Podolak (1995) and D. Jurčová (1996).

The spatial pattern of net migration at the end of the 1980's is displayed in Figure 2a, where the mean annual gains due to interregional migration in the 1987-89 period are shown for the individual regions. Three dominant features of interregional migration in the 1980's can be identified in this figure: (1) the extreme spatial polarization of migration balance, (2) the key role of the three former regional centres in the distribution of the districts having net migration gains, and (3) the generally regular distribution of regions with net migration losses without distinct macro-regional contrasts.

As a complement, net migration flows with more than 100 moves annually in the 1987-89 period are depicted in Figure 3a. In the light of the preceding discussion, it is not surprising that the flow pattern is dominated by net flows directed to the three in-migration regions mentioned. The Bratislava metropolitan districts exerted its influence over the extensive area in south-western Slovakia comprising of the districts of Galanta, Trnava, Senica, Dunajská Streda, Topoľčany, Nitra, Nové Zámky, Trenčín, and Prievidza. Most other large flows are over relatively short distances. The Košice metropolitan region attracted net flows from the three adjacent districts of Trebišov, Spišská Nová Ves, and Prešov, while the district of Banská

Bystrica gained from the neighbouring district of Zvolen.

The changes, which took place in Slovakia after 1989, have affected profoundly the net migration pattern. First of all, the net migration gains in the districts of the former regional centres rapidly decreased; by 40 and 80 %, in the districts of Bratislava and Košice respectively and dropping practically to zero in the district of Banská Bystrica. Then in the 1993-95 period net migration gains in the districts of Košice and Banská Bystrica reverted to net migration losses and in the last three-year period the same change occurred in the district of Bratislava. On the other hand, new areas with positive migration balances were formed after 1989. The numbers of districts with positive migration balance increased in 1990-92 to a third and by the end of study period even to half of the total number of districts.

The discussion can be refined by considering the net migration pattern in the last three-year period. The largest net migration gains occurred in spatially contiguous area of south-western Slovakia covering the districts of Galanta, Dunajská Streda, Levice, Senica, Nitra, Nové Zámky, and Komárno, which together accounted for 80 % of the total sum of positive migration balances in 1996-98. As far as the remaining territory of Slovakia concerns, only the district of Zvolen and to a substantially smaller extent the districts of Lučenec and Trenčín appear as the regions with positive migration balances. Interestingly, the traditionally out-migration regions situated on the Slovak-Hungarian border (the former districts of Komárno, Nové Zámky, Lučenec, Rimavská Sobota, Rožňava, and Trebišov) were transformed into areas of net migration gain at the end of the 1990's.

Negative migration balances occurred in 19 districts during the 1996-98 period. The northern Slovak districts of Čadca, Dolný Kubín, Poprad, Stará Ľubovňa, Bardejov, Svidník, and Humenné, as well as the districts of Banská Bystrica, Spišská Nová Ves, and Topoľčany were the regions with the largest net migration losses. Meanwhile, the most remarkable turnover occurred in the district of Banská Bystrica, where the second largest net migration gain from the 1987-89 period changed into the second largest net migration loss in the years 1996-98. Apart from the effect of general factors, the loss of the position of seat of regional administration and the related preferences, which

Banská Bystrica enjoyed from the beginning of the 1960s until 1990, also played here an important role.

The spatial distribution of net migration in the 1996-98 period is mapped in Figure 2b. Comparison of both maps in Figure 2 helps us to identify the principal changes in the net migration pattern. At the first place, it is obvious that the extreme polarization of migration balance disappeared and the distribution of migration balance became much more uniform. Large net migration gains have distinctly decreased and geographically "moved" out of the districts of the three former regional centres to the larger number of districts situated in their hinterland. The net losses in out-migration districts declined to about a third and the total number of districts with negative migration balances was considerably reduced.

As Figure 3b shows, there were also marked changes in the distribution of net migration flows. Compared with the 1987-89 period the size of net migration flows at the end of the 1990s considerably decreased and parallel to it their orientation reverted. The abrupt decrease of gross migration flows to the district of Bratislava from south-western Slovakia caused that the net migration flows connecting the district of the national capital with those of Senica, Galanta, Dunajská Streda, and Nové Zámky turned to the opposite direction and those between the districts of Bratislava and Trnava decreased to the minimum level. The same reasons caused almost complete disappearance of the net flow between the districts of Košice and Prešov and a turnaround in the net flows between the districts of Košice and Trebišov and the districts of Banská Bystrica and Zvolen. The new phenomenon in the distribution of net migration flows is long-distance movement to the district of Bratislava from the districts of Považská Bystrica, Žilina, Prievidza, and Košice.

Comparing the two maps in Figure 3, one point must be emphasized. The figure shows that in both the 1987-89 and 1996-98 period the largest net flows are those connected with the Bratislava metropolitan district. In addition, it is evident that the district of Bratislava exclusively attracts the net migration flows over large distances. Thus, the importance of the national capital as the "engine" of Slovakia's interregional migration system, both attracting and generating the major flows, is strong and felt during the whole period considered.

Regional differences in in-migration and out-migration

Changes in spatial distribution of net migration are determined by the different development of both components of migration balance in the individual regions. In this section we examine briefly differential changes in in-migration and out-migration propensities which are responsible for the net migration patterns in the two periods investigated.

The progressive decrease of the level of migration mobility during the whole study period has also been reflected in general decrease of in-migration and out-migration rates at the regional level. The mean value of gross in-migration rate in the set of 36 regions declined from 6.9% in the 1987-89 period to 5.1% in the years 1996-98. At the same time the mean value of gross out-migration rate also fell to the same value of 5.1%, but from a substantially higher starting level of 7.8%. Parallel to the decrease of the mean in- and out-migration rates, the variability of both components of the migration balance also rapidly declined. As the values of standard deviation indicate, the variability of the gross in-migration rate decreased by about a third (from 1.76 to 1.36) and the variability of the gross out-migration rate fell by almost a half (from 1.49 to 0.71) after 1989. The abrupt decrease of variability of both gross rates implies not only the gradual levelling up of the interregional differences in the in-migration and out-migration rates, but also a marked reduction of net migration gains and losses in the majority of regions during 1990s. The finding that the variation in in-migration was constantly larger than that in out-migration suggests that interregional migration was spatially focused rather on the destination than on the origin regions during the whole study period.

The general decrease of the level of migration mobility in the last twenty years caused a decline in the rates of both components of the migration balance in almost every district between the 1987-89 and 1996-98 periods. The gross in-migration rate increased only in the districts of Rožnava and Trebišov, while the increase of the gross out-migration rate quite exceptionally occurred in the metropolitan district of Bratislava. A comparison of both migration rates for the 1987-89 and 1996-98 periods enables districts to be classified into five groups.

The first group includes 10 districts with marked, above-average decrease of in-migration rate and moderate below-average decrease of out-migration rate. Six of them (the districts of Banská Bystrica, Košice, Martin, Poprad, Považská Bystrica, and Prievidza) were the long-established in-migration regions by the end of the 1980s. The sudden decrease of migration attractiveness after 1989 changed their positive migration balances from positive to negative. The present net migration losses in these districts are, therefore, not attributable to the growing out-migration, but above all to the marked decrease of in-migration. The remaining four districts of this group (Bardejov, Humenné, Svidník, and Zilina) were out-migration regions in the 1987-89 period and their net losses became even larger as a consequence of the pronounced decline of the in-migration rate by the end of the 1990s.

The second group contains 14 districts with an above-average decrease of the out-migration rate and below-average decrease of in-migration rate. All these districts were characterized by negative migration balances in the second half of the 1980s, but due to the pronounced decrease of out-migration rate, the majority of them (above all the regions of Dunajská Streda, Galanta, Komárno, Nitra, Nové Zámky, Rimavská Sobota, Senica, Trenčín, Trnava, Veľký Krtíš, and Zvolen) became migration-gaining regions. It should be noted, however, that the occurrence of positive migration balance in these districts is not a manifestation of increased migration attractiveness, instead it is a simple consequence of scarce opportunities to out-migrate. Negative migration balances did not change in the remaining three regions of this group (namely, Čadca, Spišská Nová Ves, and Vranov nad Topľou), but their net migration losses became lower.

In the third group consisting of 9 districts the overall reduction in migration mobility affected in-migration and out-migration propensities in a similar way so that all districts recorded approximately the balanced decrease of both migration rates. As the decline of out-migration rates was slightly more distinct than that of in-migration rates, all districts experienced moderate improvement of migration balance. In five districts (Dolný Kubín, Michalovce, Stará Ľubovňa, Topoľčany, and Ziar nad Hronom) net migration losses declined, in three districts (Liptovský Mikuláš, Lučenec, and Prešov) the negative

migration balances changed to positive and in the district of Levice net migration gain almost doubled.

As the three remaining districts are remarkable for specific combination of both components of migration balance, they are classified into two separate groups. The fourth group is formed by the districts of Rožňava and Trebišov, the only regions in Slovakia to record slight increases of their in-migration rates accompanied by slight decreases of out-migration rates. Due to this combination the two traditional out-migration districts, located in the in-migration sphere of the Košice metropolitan region, became migration-gaining regions. The last, fifth group contains the metropolitan region of Bratislava, which differs from the remaining districts by the marked decrease of in-migration rate and slight increase of out-migration rate. Consequently, the turnaround of migration balance in the region of the national capital was not caused only by the decline of migration attractiveness, but also by the growing intensity of out-migration.

Concluding this section, it is worthwhile to examine the nature of the relationship between out-migration and in-migration rates across the set of the 36 regions considered in this study. The traditional economic approach to interregional migration is essentially based on a "push-pull" phenomenon: migration is motivated by poor employment conditions (low wages, high unemployment) and migrants are attracted to areas with high wages and low unemployment (cf. Cordey-Hayes 1975). The basic hypothesis of the above push-pull theory is that out-migration is inversely proportional to in-migration. However, the findings of this study suggest that this hypothesis is not valid in relation to interregional migration in Slovakia. While there was a little evidence of any significant association between out-migration and in-migration in the 1980s, just the opposite type of relationship was observed after 1989. For instance, for the 1990-92, 1993-95, 1996-98 periods the correlation coefficients between gross in- and out-migration rates were found to be 0.60, 0.68, 0.72, respectively. It means that the regions of net in-migration are characterized not only by high rates of gross in-migration but also by higher than average rates of gross out-migration. The regions of net outflow, on the other hand, have lower than average rates of both in- and out-migration. Several explanations have been

advanced to help explain the many situations where positive relationship has been found. They accentuate the relation between migration and regional labour markets, the age structure of migrants or behavioural aspects of migration (cf. Plane and Rogerson 1994, pp. 101-102). The question, which of these explanations is plausible in the Slovak context, remains open.

Conclusion

Spatial pattern of population redistribution through internal migration in Slovakia in the 1990s was significantly different from that apparent in the previous decade. Dramatic shifts have occurred in response to processes of political reform, economic restructuring and social changes. It was the aim of this paper to provide interpretation of the changing pattern of internal migration in Slovakia during the 1981-98 period at the interregional scale using data from current registration of population.

At the national level, the research has shown a continuation in the long-term decline of the level of internal migration in both absolute and relative terms. What is perhaps surprising is that the rate of migration between communes within the same region declined more appreciably than the rate of migration between communes in different regions. The overall effect of these changes is that the proportion of interregional migration has increased in the 1990s. The concomitant features of this trend include the rapid increase of migration flows in the opposite direction and moderate increase of the mean length of migration. Despite the recent increase in the proportion of longer distance movement, the efficiency with which net migration redistributes population between regions in Slovakia has declined over time. The decisive role in the overall decline of migration mobility has been played by the housing question in the 1990s.

At the regional scale, the results highlight the general shift in pattern of movement from the strongly centralized picture to a more uniform and decentralized pattern. The geographical distribution of net migration in Slovakia is no longer dominated by huge net migration flows to regions with the major administrative centres and big industrial areas. By 1990, the extreme migration balances had disappeared and the net migration pattern had become more uniform. Long-established in-migration regions have subsequently been transformed into areas of net migration loss and

some of the traditional out-migration regions have experienced net migration gains. In addition, there is a clear evidence of short and medium-distance deconcentration drifts, involving net migration flows from both of Slovak metropolises, Bratislava and Košice, to adjacent regions. The importance of the metropolitan region of Bratislava as the “engine” of Slovakia’s interregional migration system is strong and felt during the whole period considered.

Acknowledgement: The research reported in this paper was supported, in part, by the Scientific Agency of the Ministry of Education of the Slovak Republic and the Slovak Academy of Sciences under grant No. 2/7051/22. The author is grateful to Martin C. Styan for correcting the original English version of the paper.

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Table 1. Internal migration in Slovakia, 1981-1998

Migration	1981-83	1984-86	1987-89	1990-92	1993-95	1996-98
Between communes in districts	62 523	63 873	62 669	61 019	48 632	43 503
annual rate (per 1000)	12.4	12.4	11.9	11.5	9.1	8.1
share of total migration (%)	60.6	61.0	62.3	63.9	61.8	61.4
Between districts in Slovakia	40 694	40 908	38 003	34 459	30 021	27 388
annual rate (per 1000)	8.1	7.9	7.2	6.5	5.6	5.1
share of total migration (%)	39.4	39.0	37.7	36.1	38.2	38.6
Total migration	103 217	104 781	100 672	95 478	78 653	70 891
annual rate (per 1000)	20.4	20.3	19.2	18.0	14.7	13.2

Note: Data in the table are the mean annual numbers or mean annual rates. The number of moves corresponds to the number of communes in the particular year. The intraurban moves between the city districts (or city wards) in Bratislava and Košice are not included.

Table 2. Summary statistics of interregional migration, 1981-1998

Statistic	1981-83	1984-86	1987-89	1990-92	1993-95	1996-98
Total migration (in 1000s)	40.7	40.9	38.0	34.5	30.0	27.4
Migration intensity (per 1000)	8.1	7.9	7.2	6.5	5.6	5.1
Mean migration distance (km)	103	103	102	104	107	106
Sum of the absolute values of the net migration balances (in 1000s)	11.6	14.0	10.9	5.6	3.9	3.2
Migration efficiency	14.2	17.1	14.4	8.1	6.5	5.8
Migration symmetry	0.790	0.713	0.772	0.912	0.948	0.917
Migration concentration	1.047	1.065	1.052	1.029	1.020	1.007



Fig. 1. The 36-region system used in this study

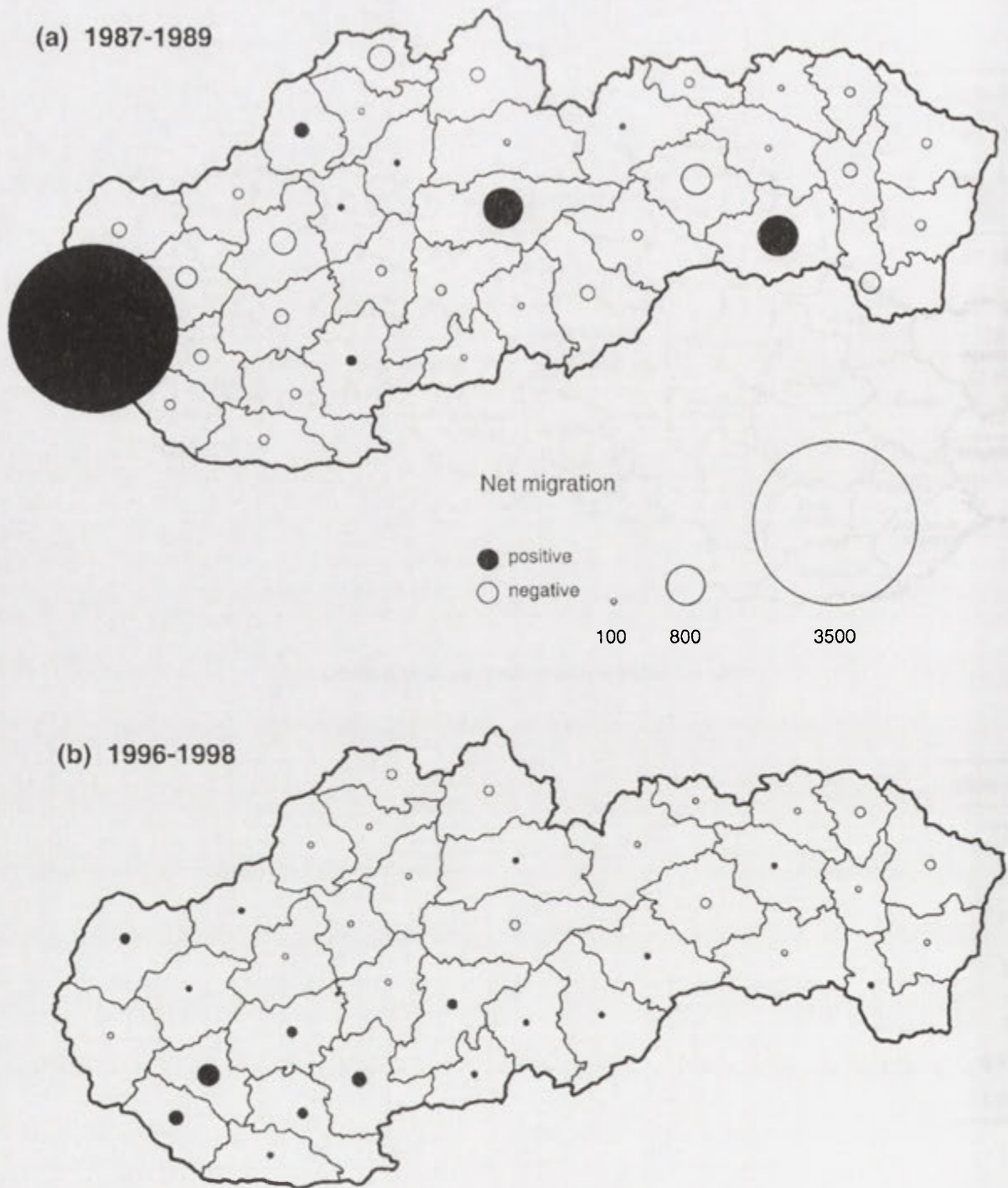
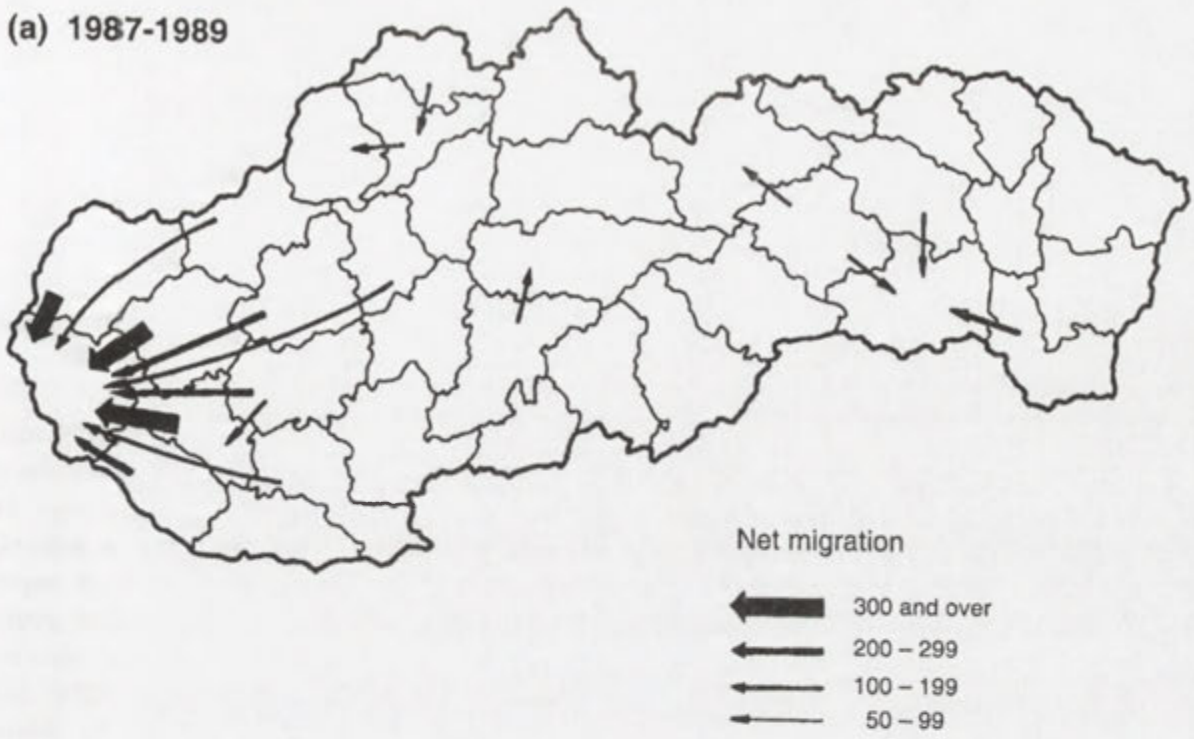


Fig. 2. Net migration by districts, 1987-1989 and 1996-1997

(a) 1987-1989



(b) 1996-1998



Fig. 3. Major interregional net migration flows, 1987-89 and 1996-1997

(a) 1987-1988



(b) 1988-1989



Regional aspects of life expectancy in Slovakia

Anton Michálek

Introduction

Slovakia is characterized by pronounced disparities in many fields, while large differences in life expectancy between the individual regions are especially remarkable. There are regions in Slovakia with the population's perspective to live longer than in other regions. This fact, beside others, indicates certain problems of some regions not only from the viewpoint of life expectancy but also with regards to health condition and life quality of their population. In general, what is referred to as The factors considered most important in terms of health condition and life expectancy of the population are: unequal socio-economic conditions ⁽¹⁾ and their impact on the physical and psycho-social condition of the population, different level of education ⁽²⁾, a different historically and culturally determined life style, but also different level of damage to the environment. These and other factors, such as components of the environment, human relations, life philosophy, etc. to a large extent determine the mental and physical state of population, and consequently, the different life expectancy in regions (Marmot 1989, Volná 1991, Ginter 2001 and others). The relation of life expectancy to overall political and social climate in countries is also well known. A functioning plural democracy identifies the individual with the State and increases its assertiveness and security, favorably influencing his/her overall health condition and physical resistance. The deteriorating mental condition of Slovakia's population during the many years' totalitarian regime and the political turbulence, which followed after 1989, caused an increasing incidence of chronically stressed, depressive, anxious and hostile individuals.

They concentrate in regions with high unemployment and poverty rates, in the urban environment of large cities and in some other regions of Slovakia. Mental factors along with the

conventional ones have significantly determined the increased incidence of chronic noninfectious diseases (Sebej 1989), which reduce life expectancy of the population in some regions of Slovakia.

Retrospective view of life expectancy in Slovakia

The development of life expectancy in Slovakia can be divided into several developmental stages. The highest increase has been recorded after World War II. The reason of increased life expectancy in the above-mentioned period was the decline of overall mortality, decrease of infant mortality, decrease of mortality from infectious and parasitic diseases, improved hygienic standards and the like. Accelerated industrialization, which brought about increased living standards and an improvement of the existential situation of the majority of population, was also one of the factors. Apart from it, at the beginning of the 1950's the socialist government had enormous means available coming from nationalization and used part of it for enhancing the level of education, social and health care in towns and rural areas. Positive changes in health insurance, which provided accessible health care, obligatory vaccination against infectious diseases, regional application of antibiotic and sulfonamide therapy, as well as application of the most recent knowledge of biological and medical sciences were the principal causes of the increasing life expectancy. While the mean life expectancy of men in 1950 was below 59 years, it increased substantially in 1964 to 68.8 years. Inhabitants of Slovakia reached the approximately same age as those of democratic European countries. The 1960s however, and above all the 1970s in Slovakia are characterized by life expectancy lagging behind that of advanced Europe. The main cause was the premature mortality from cardiovascular diseases, which affected in the first place men. Exhausted finances

drawn from nationalization, poor performance of the centrally planned economy, as well as the overall decline of the system (Soviet occupation and its consequences including the "process of normalization") and the totalitarian method of governance have probably created the environment. Its features such as: an unfavorable psycho-social climate, a deficient educational system, deficient information transfer, degradation of the environment, especially the impact of emissions on soil and water were the factors, which favored the origin of these diseases. Heart diseases together with neoplastic diseases stopped the increase and even led to a moderate decrease of life expectancy of men (Demeš et al. 1999). The contrary trend is observable in the 1990s when the curve of the mean age increased again (both for men and women) also probably as a consequence of advances made in cardiology, a better accessibility of quality medicaments and accelerated diagnostic of serious diseases with the use of modern technology (Zajac, Pazitný 2000). The decrease of overall mortality after 1990 (especially that of mortality of men connected with the better care for their own health and improved composition of nutrition), decrease of infant and new-born mortality rates together with other favorable factors caused the prolongation of the mean life expectancy at birth. Life expectancy at birth reached 68.95 and 77.03 years for men and women respectively in 1999 (Tirpák et al. 2000). In spite of it, shorter life expectancy at life birth of both sexes than in Slovakia is to be found only in some former USSR countries: Ukraine, Latvia, Lithuania, Estonia, Russia, Moldova, as well as Rumania, Bulgaria and Turkey. When compared to the healthiest states of the EU, Slovak men live by 8-9 years and women by 6 years less. The comparison of health condition trends and life expectancy of populations of two so close and linked countries as Slovakia and the Czech Republic (Ginter 2001) is also interesting. While in the period of the common state (1980-86) the values of mean life expectancy of men in both countries were the same, in 1998 the mean life expectancy of men in Slovakia was shorter by 2.5 years than in the Czech Republic. Although in both countries life expectancy of men increased after the onset of democracy, this trend was far more favorable in the Czech Republic. While the mean life expectancy of men steadily increased since 1990 in the CR accompanied by a

decreasing mortality from cardiovascular and neoplastic diseases, the mean life expectancy of men in the SR stagnates since 1993 with stagnating or slowly decreasing mortality from the above-mentioned diseases. The quoted differences, unfavorable for the Slovak male population, are caused by multiple factors and they are connected with different life styles of the Slovak and Czech societies. Worse economic situation and the related wrong dietary habits (higher consumption of animal fats, distillates, etc.) stress, deteriorated human relations, lower educational level affecting the way of life, and the like, characterize the situation in Slovakia. However, not all causes are known and require further relevant analyses. It must be also noted that the countries with the longest mean life expectancy at birth in Europe include Iceland (76.9 and 81.5), Switzerland (76.4 and 82.4), Norway (75.5 and 81.3), Finland (73.5 and 80.8), Denmark (73.7 and 78.6), Malta (74.4 and 80.1), Luxembourg (73.5 and 79.6), Netherlands (75.1 and 80.5), Austria (74.8 and 80.9), Greece (75.3 and 80.6). The lowest mean life length is for years registered in some countries of Africa and Asia. The mean life length moved in the world after 1998 from 34 years (Sierra Leone) to 80 years (Japan).

Mean life expectancy

The most frequent demographic indicator of life length is the mean life expectancy calculated from the data of mortality after the first year of life to the limit age over 100 years. It can be calculated for different ages, i.e. this indicator expresses the quotient of the years of life, which are supposed for certain generations and the number of surviving individuals. Mean life length is then the basic synthetic indicator of the level of living conditions of the population and its mortality. The data on mean length of life are especially interesting for older generations, as they provide information on the probable life expectancy (age). For example, if a man/woman aged 65 learns that the mean life expectancy of men in Slovakia is now 69 years, it does not mean that there are only four years of life left for him. From the statistical point of view his chances to live longer are much bigger because he has survived the risk of infant mortality, mortality caused by accidents in adolescence and risks of all deaths before he reached the age of 65. Such

man/woman (65 years old) living in the SR has the chance to live at least another 13 and 17 years respectively (Ginter 2000).

Life expectancy in districts of Slovakia

Precisely the mean life expectancy for the period of 1996-2000 calculated from the mortality tables for 79 districts of Slovakia became the basic indicator for observation of regional difference in life length of its population. Observing the mean life expectancy of men at birth we can see great regional differences. The difference between the district with the lowest mean life expectancy and the district with the highest mean life expectancy was 7.6 years in the studied period. There are 5 districts in Slovakia where the mean life expectancy is lower than 67 years (in one of them, the district of Krupina, it is even lower than 65 years). From the regional point of view the men in the districts of the metropolitan cities of Bratislava and Košice, the continuous region composed by the districts of Piešťany, Partizánske, Bánovce nad Bebravou, Prievidza, Martin and the individual districts of Tvrdošín, Poprad, Bardejov, and Svidník are the most favored ones. On the contrary, the lowest mean life expectancy of men at birth is observed in southern districts, which form a continuous belt starting with the district of Levice and ending by that of Sobrance. The worst situation is in the districts of Banská Štiavnica, Krupina, Detva, Rimavská Sobota, Trebisov, and Sobrance. These districts along with the district of Čadca are considerably risky as far as the life expectancy of men at birth is concerned (map 1).

The situation of women is much more favorable. Their life expectancy at birth is much higher and less regionally differentiated (the greatest difference is 4.3 years). The mean life expectancy of women at birth is highest in the districts of Liptovský Mikuláš and Trenčín, where it reaches more than 79 years and is lower than 76 years only in six districts. Like in the case of men, the lowest life expectancy of women at birth is in the district of Krupina (74,94 years). As far as the regional values are concerned, the longest life expectancy of women is in the districts of Trenčín, Bánovce nad Bebravou, Prievidza, Martin, Tvrdošín, which create a continuous macroregion with the districts of Žilina, Kysucké Nové Mesto, Dolný Kubín, and Liptovský Mikuláš. The mean life expectancy of women is unfavorable in the

south Slovakian districts while the worst situation in this respect is in the districts of Krupina, Revúca, Košice IV, Trebisov, Levoča, and Medzilaborce (map 2) similar to the situation of men in the above-mentioned districts.

Etiology of regional disparities from the point of view of life expectancy

The causes of earlier mortality of inhabitants in the observed districts are not sufficiently investigated. It is supposed that the low mean life expectancy of both sexes in identified districts has several common causes and some specific features connected with the overall situation in the individual regions. It seems that the unfavorable state in southern Slovakia and in some of east-Slovakian districts is determined by adverse social, and above all, economic factors (unemployment and the associated financial problems sometimes culminating in poverty of a large part of population), which are often causes of family and health problems, deteriorated human relations, coexistence, etc. Unemployment is the most important adverse factor, the impact of which influences the mental condition of population, frustration and despair, which lead to increased incidence of health problems of younger age groups (Musselman et al. 1998). Life expectancy is also negatively influenced by the quality of health care services accompanied by poor accessibility of sophisticated diagnostic methods, higher infant mortality (east Slovakia), unhealthy life style (men in the south-Slovakian districts), high alcohol (distillates) and tobacco consumption, imbalanced diet (high consumption of animal fats, low consumption of vegetable and fruit). Demographic factors are also important, high share of the Roma ethnic group characterized by low mean life expectancy is conspicuous. Some partial studies of the Roma population showed that the mean life expectancy of Romas concentrated in the east of the Republic is shorter than that of the rest of the population by as much as 10 years. Although it is very difficult to prove the impact of ethnic factors in the regions of Slovakia, there exist studies investigating life styles of ethnic groups of the population and their life expectancy. One of such contributions is that of E. Ginter carried out in 1996, which studied the principal factors affecting life expectancy on samples of Slovaks, Hungarians, and Romas living in the district of Levice. The

results showed an unhealthy life style of the Roma minority, characterized by lower education, higher The situation of women is much more favorable. Their life expectancy at birth is much higher and less regionally differentiated (the greatest difference is 4.3 years). The mean life expectancy of women at birth is highest in the districts of Liptovský Mikuláš and Trenčín, where it reaches more than 79 years and is lower than 76 years only in six districts. Like in the case of men, the lowest life expectancy of women at birth is in the district of Krupina (74,94 years). As far as the regional values are concerned, the longest life expectancy of women is in the districts of Trenčín, Bánovce nad Bebravou, Prievidza, Martin, Tvrdošín, which create a continuous macroregion with the districts of Žilina, Kysucké Nové Mesto, Dolný Kubín, and Liptovský Mikuláš. The mean life expectancy of women is unfavorable in the south Slovakian districts while the worst situation in this respect is in the districts of Krupina, Revúca, Košice IV, Trebišov, Levoča, and Medzilaborce (map 2) unemployment rate, generally lower cultural level, high consumption of beer, distillates, and tobacco, which provoke hypertension and weaken the immunity system. Generally, from the point of view of mean life expectancy at birth, southern Slovakia distinctly lags behind the remaining regions of Slovakia.

Mortality: main causes and regional disparities

In consequence of general trends of decline or stagnation of mortality in the recent decade, as well as that of natality, a demographic aging of population is observable. The gross mortality rate maintains below the value of 10 per mille since 1993. However, this positive situation is not connected with an improved health condition of the population. It is caused by the age structure in Slovakia (people born in the lower natality years (1915-1925) reach 75 and more years). In 1999, 28,1 thousand men (53.6%) and 24.3 thousand women (46.4%) died in Slovakia. As much as 1,156 men died per 1000 dead women. This unfavorable mortality rate of men is connected with their higher mortality in middle age categories (35-54 year old), which is 2.6-3.2 fold higher than that of women at the same age. As much as 77.3% of the mortality is due to two classes of death causes. The highest mortality is caused by the diseases of the circulatory system even in spite of the fact that

the incidence of these diseases slightly decreased (by 0.2 per mille) in the last decade. Important differences in trends between sexes are also interesting. The number of deaths in male and female populations decreased by 8% and increased by 5% respectively in the last decades. The acute mortality of men caused by coronary thrombosis decreased by more than a quarter compared to female population where it declined only by 8%. Simultaneously, a dangerous increase (by a quarter) of female mortality caused by coronary thrombosis in the 40-44-age category is observed. The mortality caused by cerebral incidents, which declined in male and female populations by 16% and 14% is characterized by more balanced trends. It seems that the unfavorable situation of men in heart diseases progressively improves while that of women worsens. It is also obvious from the comparison of the risk value of total cholesterol and high blood pressure which are almost equal in both sexes (43% of men and 40% of women have risk cholesterol and more than 1/5 of men and less than 1/5 of women have high blood pressure). On the contrary, very unfavorable trends have been observed in the development of mortality from neoplastic diseases, which increased in male and female populations by 14% and almost 20% respectively in the last decade.

Mortality from diseases of the circulatory system

In 1999, 28.7 thousand people or 54.7% of the total number of dead persons died from diseases of the circulatory system. Out of the diseases included in this death cause, coronary thrombosis and vascular diseases of brain are responsible for the majority of deaths. They are followed by hypertension and renal diseases. A closer look at the death rate caused by diseases of circulatory system in regions reveals the distinct north-south polarization of the phenomenon (map 3). The least people die in the northern districts, while Orava (Námestovo, Tvrdošín, Dolný Kubín), the sub Tatra districts of Poprad and Kezmarok, and the districts of Martin and Košice are characterized by especially low mortality caused by this type of diseases. The lowest rate was recorded in Tvrdošín with only 3.2 deaths per thousand inhabitants. Mortality higher than the national average (5.6) in northern Slovakia was observed only in six districts: Bytča, Púchov, Ružomberok,

Medzilaborce, and Snina. A completely different situation is observed in the south Slovakian districts characterized by very high values of mortality from diseases of the circulatory system. Higher mortality than the Slovak average was found in 20 districts. They form a continuous belt starting in southwestern Slovakia by the district of Senec and ending by the district of Michalovce in eastern Slovakia (with the exception of Revúca). This belt includes the district of Krupina with the highest mortality from cardiovascular diseases (9.8), which along with the district of Turčianske Teplice are the most threatened. This situation is the result of several factors (old population, unhealthy life style, above all, unhealthy dietary habits, and the like).

Mortality from neoplastic diseases

The second most frequent death causes of male and female populations (25.4 and 19.8, respectively) are neoplastic diseases. In 1999 11.9 thousand persons i.e. 22.6% of the total deaths died from the above-mentioned diseases. Cancers of trachea, bronchus and lungs, as well as those of stomach and colon are the most frequent death causes. The distinct spatial differentiation of neoplasms in the 1960-1974 period with comparatively stable delineation of the individual zones (Krajčír 1980) decreased in consequence of numerous known or less known factors. The rate of mortality from cancer in the regions (districts) of the SR shows that it is now distributed in a comparatively even way (map 4). The prevailing majority of districts (61) had approximately the same mortality rate caused by cancer as the national average (2.2 deaths per 1,000 inhabitants) in the study period. Somewhat more favorable/lower values are observable in six districts (Námestovo, Tvrdošín, Stará Ľubovňa, Sabinov, Spišská Nová Ves, and Vranov nad Topľou) while the lowest mortality from cancer was recorded in the district of Námestovo. It is difficult to define the causes of this situation but the age structure of population plays an important role (higher share of younger age groups). This fact also documents the higher incidence of deaths from cancer, which was recorded in the district with higher share of old population. Especially high mortality was recorded in the districts of Komárno, Lučenec, Turčianske Teplice, Medzilaborce, and Sobrance while the phenomenon is also determined

by additional factors (generally known higher mortality in the two latter mentioned districts).

Conclusion

Slovakia, in spite of the relatively favourable development of life expectancy of its population in the last decade, distinctly lags behind the advanced countries. What is worse though, there are regions in Slovakia where life expectancy reaches the level of the underdeveloped world. The distinct differences in life expectancy are the consequences of numerous factors, which more or less affect the health condition and mortality of population. The cognition of the most important factors and the rate of their impact on health and eventually life expectancy of population are the basic prerequisite necessary for the removal of unequal conditions of life length and life quality of inhabitants in the regions of the SR. It is obvious that disease as a consequence of different socio-economic and other factors determines and reduces life expectancy in some, above all, poorer regions of Slovakia (Michálek 2001b). The question of health and life expectancy is the matter of social policy, which should solve the basic causes of economic poverty and "unjust" ³ increase of economic inequality.

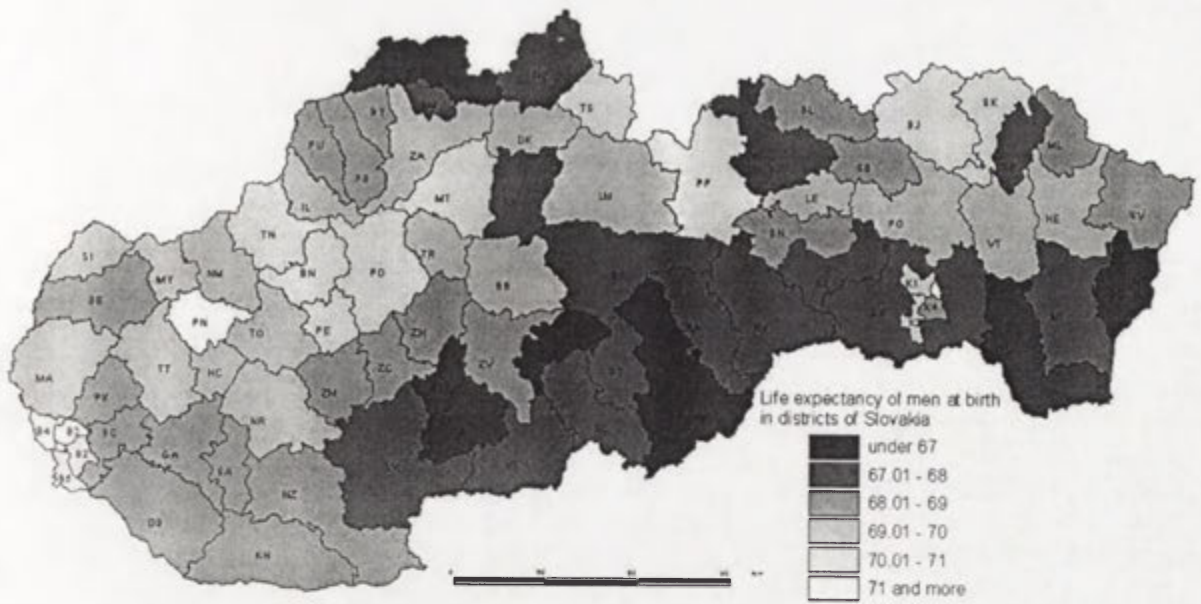
¹ The quoted (Marmot 1989, Volná 1991, Ginter 2001) and other known studies confirm a significant dependence between the socio-economic state and mortality of population. The results of the above-mentioned studies confirm that the rich people have always lived and live longer than poor people. It was also confirmed that the same disease is more fatal for the poor than the rich part of population. Poorer people are also threatened by higher probability of mortality from cardiovascular diseases, diabetes, inflammations and chronic lung disease, influenza, AIDS, cirrhosis or that caused by accidents, murders or suicides (Barondess 2001, Michálek 2001a). The finding that the discrepancies in mean life expectancy occur in all socio-economic groups, i.e. that poorer people also live shorter that the people ranking higher in social scale, is also important. The reasons vary. In general, poorer people are not so well informed on health life style (nutrition, hygiene, and the like), they live or work in worse conditions, tend to aggressive and risky behavior. It is proved that the control of stress, connected, for instance, with higher financial loading of the lower social strata, is worse. It is also proved that the combined effect of stress and weakened organism increases the threat of mental disorders and it is directly connected with lower resistance to diseases.

² British scientists who found out that better mental capabilities reduce the risk of mortality before the 76th year of age confirmed the dependence between education or intelligence and life expectancy. They based this affirmation on tests made with 2,792 persons in Aberdeen, Scotland. Although they did not define the precise mechanism of the effect of education and intelligence on longevity, on the basis of the results obtained however, they are convinced that education and higher mental capabilities are the decisive factor influencing the property, diet and generally healthier way of life (British Medical Journal, In. SME 2001).

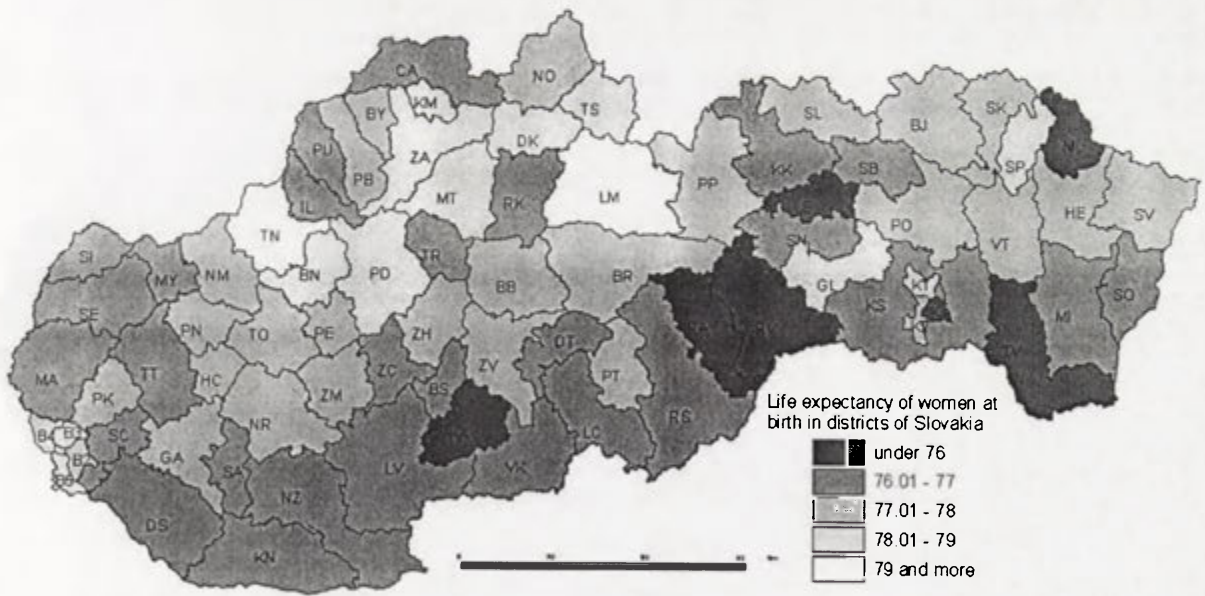
³ It is the case of inequalities between inhabitants, which do not correspond to the principle of merit. Part of the population acquired its property illegally or by ways other than the reward for work or its social contribution.

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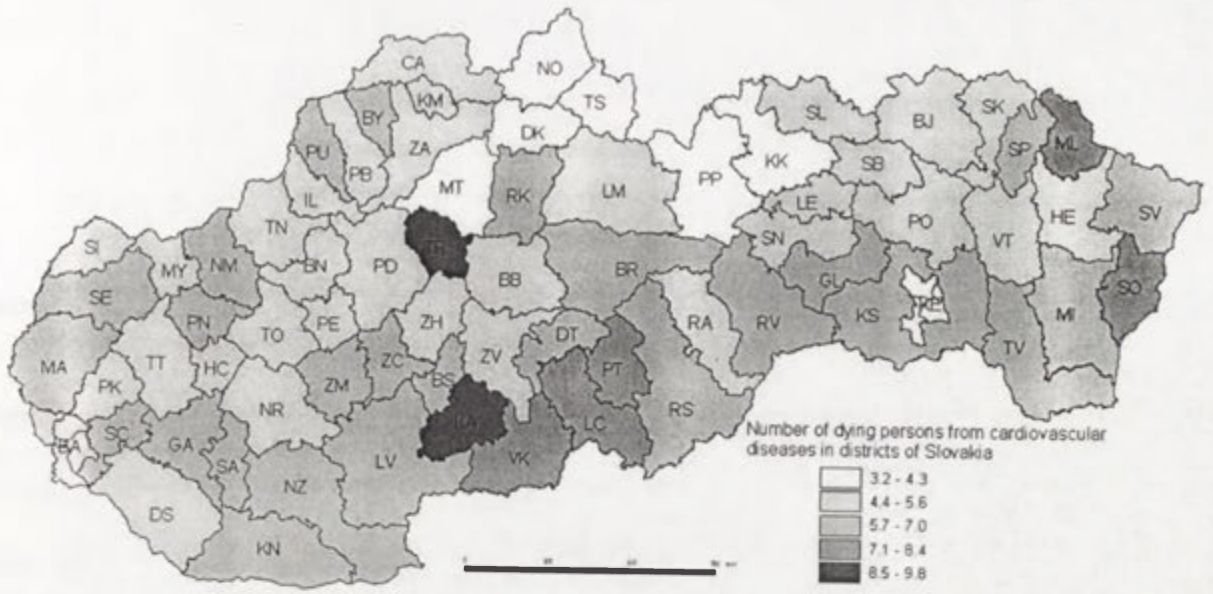
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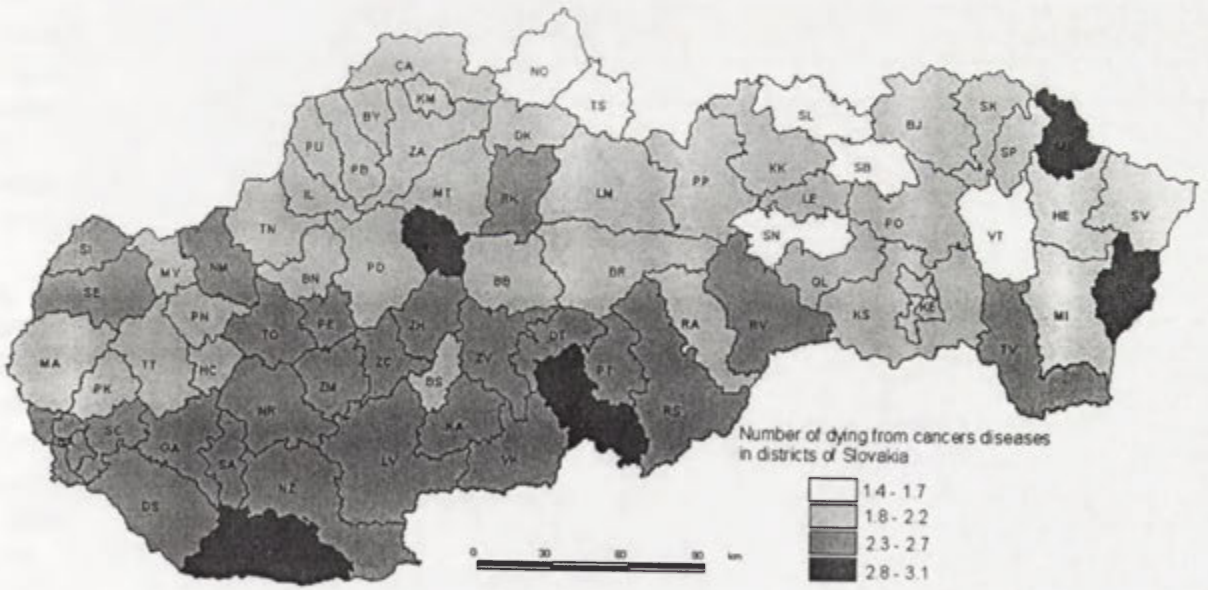
Map 1. Life expectancy of men at birth in Slovakia (average for 1996–2000)



Map 2. Life expectancy of women at birth in Slovakia (average for 1996-2000)



Map 3. Number of persons dying from cardiovascular diseases per 1000 inhabitants in Slovakia (average for 1997-1999)



Map 4. Number of persons dying from cancers diseases per 1000 inhabitants in Slovakia (average for 1997-1999)



Fig. 3. Diagram of the structure of the...
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Fig. 4. Diagram of the structure of the...
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Population ageing in Slovakia

Peter Podolák

Introduction

Ageing of population is considered to be a highly topical process, which has complex demographic, social, economic and psychological consequences.

In the last third of the 20th century, the share of senior citizens in the total of population in the most advanced countries rapidly increased, considerably changing demographic structures and consequently the perspectives of future development. It is necessary to seek answers to a number of questions and problems ensuing from the change of demographic structures. If at present the share of inhabitants aged 60 and more in the countries of the European Union is estimated at 20%, it means that by 2010, it will reach 25%. The present state and the probable future development suggest that in terms of higher representation of older citizens and the change of their living style, far-reaching consequences for the production and assortment of goods, their consumption and services of different nature can be expected.

The issue of age structure and population ageing became the subject of numerous studies, which consider these processes from different angles: demographic, geographic, sociological and other. For example works by Anděl (1986), Kontšeková (1991) or Sonis (1981) represent the category of theoretical and methodological studies. Other studies are dedicated to the assessment of age structure of particular populations, Ex. Kurkiewicz (1996) or Rosenberg (1989). Demographic ageing was already subject to research before the division of Czechoslovakia. (Mašková, 1991).

The changes of age structure and acceleration of demographic ageing in Slovakia in the last years of the twentieth century initiated numerous studies dedicated to the subject, for instance Bezák (1992), Michálek (1995), Mládek a Pavlíková (1999), Podolák (2001), Šinka et al. (1994), and Uhrinová (1996).

The aim of this article is to point to some basic attributes of the ageing process and its manifestation at the national and regional levels.

Processing of the rates of regional discrepancies at the level of the present administrative districts required the calculation of the data obtained at the level of communities. The administrative reform, which took place in Slovakia in 1996, resulted in a higher number of districts (it increased from 38 to 79). This is the reason, why it was necessary to calculate the values of the main age population groups in the individual communities in 1970 and to sum up these values using the present administrative division in order to obtain comparable values for the years 1970 and 2001. In case of the cities of Bratislava and Košice, the individual urban districts having the statutes of administrative districts, were joined into one urban unit again for the sake of comparability with the remaining districts of Slovakia.

Population age structure of Slovakia – trends of development

In accordance with the UNO criteria, demographic ageing is classified into three stages of development. This classification is based on the assessment of the share of population older than 65. Populations where the above-mentioned share is smaller than 4% are considered "young", populations with this share equalling 4-7% are considered "mature", whereas "old" populations are those, where the share of population aged 65 and more is larger than 7%.

The application of such an assessment leads to the finding that at the beginning of the past century the population of Slovakia finished its development in the "young" category (the share of 65+ aged population was 4.7% in 1900). Slovakia's population was in the category of "mature" (share of population aged 65+ was 7%) until 1960. Since 1960, the share of population aged 65 and more has been steadily increasing and reached about 11% in

1999, which classified Slovakia's population as "old" (Mládek, Pavlíková 1999).

If compared with the rest of the world, Slovakia belongs to the group of more than 40 countries with the oldest population (together with other European countries, excluding Albania and Bosnia). Although, as far as Europe is concerned, Slovakia is still a relatively young population, the ageing trend is strongly marked in its demographic developments.

In the long-term perspective population ageing is not a continuous process in Slovakia, there were some imbalanced periods. The joint effects of demographic and other factors have recently caused an acceleration of the processes of absolute and relative ageing.

Comparison of age pyramids for the years 1970 and 2000 (fig. 1) suggests some differences in age structure of the population, which in general confirms the ageing process. The decline of the number of younger age categories (below 20) is obvious, on the other side, numbers of all remaining age categories have been increasing in the last 30 years. It especially applies to the categories of reproductive age and the category of post-production age, namely that of the female part of the population. The deformation of Slovakia's population age structure which also appeared in 1970 was repeated in the age pyramid of 2000, although to a smaller extent, with a 30 year delay, and due to new phenomena. The logical and generally applicable rule is that the incisions in the age pyramid in the long-term development (as a consequence of the previous development) are normally obliterated. It means that the further changes of age composition will now depend on the future character of demographic reproduction and international migration. The deeper the decline of natality and mortality, the lower the share of children and the higher the share of the older component of population.

Irregularities in the number of persons in particular age categories are reflected in the events, which have influenced the level of reproduction both in positive and negative ways. Consequences of World War I are still observable, as well as the compensating periods with positive features of reproduction, although time has weakened the irregularities. With regard to the increasing life expectancy, the effect of old deformations, is longer-lasting and more marked than ever in the

past. It is therefore necessary to consider the consequences of natality depressions or the waves of the first third of the 20th century even in the end of this century, as they affect the numbers of older age population groups. The age pyramid of Slovakia's population was still progressive in the 1960s and possessed a comparatively broad base and a numerically strong children component, but its shape starts to change progressively with population ageing.

In Slovakia (like in the majority of economically developed countries) fluctuations in natality in the course of decades play a decisive role in population ageing. Graphics representing these periods are eloquent. Especially the 1950s and 1970s are evidently compensating periods. According to long-term demographic trends, the natality wave of the 1970s should manifest in the number of born persons in the course of 20 to 25 years, but in the consequence of the socio-economic transformation in Slovakia and the demographic behaviour of population, it was not the case. Fertility both declines and moves to higher age groups. The result is the tapering base of the age pyramid in the recent decade. Now it is possible to characterize the population of Slovakia as that of regressive type with insufficient reproduction.

The effect of mortality development (in normal conditions, in peace and free of catastrophic epidemics) was substantially weaker as the decline of mortality rate in after-war decades was observable in younger age groups. The growing differences of mortality between sexes though, were the cause why the factor of mortality had a different effect in male and female populations. The after-war changes of mortality contributed to an increased share of women aged 60 and more, in male population however, they brought a decline only in the share of old men (the mortality in the age group 45-55 years was extremely high and just recently exceeded twice the European average). From the statistical point of view both these influences eliminate each other in terms of the effect of mortality on the share of old population as a whole. In the course of several years the strong years (in natality) from the first half of the 1950s will reach the retirement age. Consequently, the process of population ageing will accelerate and, due to the slow but steady increase of mean life expectancy, even with a maintained mortality rate,

the number of older persons will be distinctly increasing. Hence, not only ageing from bottom up but also the ageing from above to bottom will be both relatively and absolutely observable.

Population ageing is closely connected with its mortality characterized by the indicator of the mean life expectancy. This indicator expresses how many years a person at certain age will still live. Most frequently mean life expectancy at birth, which expresses the average number of years a person born in a certain population lives, is used as a measure. In 1950 the mean life expectancy in Slovakia was 62.4 and 59.0 years of women and men respectively. In 2001 it increased to 77.2 and 69.1 years for women and men respectively. Compared to advanced countries of Europe though, Slovakia still ranks at the bottom of the scale.

High increments of children, a result of after-war increase of natality, prevented any substantial increase of the aged population share. This period was followed by intensive demographic ageing, when the relatively high increments of old population were accompanied by the stagnating number of children aged 0-14. This period lasted in Slovakia approximately to the mid-1970s, when the shares of population at the pre-productive and post-productive ages reached 26 and 14% respectively. Under the effect of increased natality in the 1970s, the base of the pyramid widened, and temporarily also the decline of the old population was observed, as the very weak generations born in the years of the World War I reached the age above 60 years. After 1980 and especially after 1990, the base of the age pyramid started to taper under the effect of the declining absolute number and relative representation of children.

The relationship between the principal age groups was relatively stable in the 1970s and 1980s. The share of children below 15 years exceeded one fourth of population, while the number of persons older than 60 was lower than 14%. The shares of the principal age groups started to change only in relation to changes of demographic behaviour in the 1990s. In 2001 the share of children below 15 declined below 19% and the share of persons older than 60 approximated 17%. The quoted age groups are characterized by different numbers and discrepancies in nature of changes, which took place in their structure in the recent years. For

instance, irregularities at the level of decline, reflect in irregularities in representation of the youngest age group. In the 1990s the number of population aged 60 and more increased by 42 thousand, so did the percentage of this age group in the total of population. This development was also influenced by a favourable development of mortality of middle and older age groups. The number of persons aged 60 and older will increase even if the present mortality rate maintains in the consequence of a shift of the strong after-war population years into this category. Dividing of this age group into smaller groups reveals certain discrepancies in the development of the individual age groups. The assessment of the numbers of these age groups must include the trend of mortality increasing with age. Some characteristics of age structure in the past can change or even disappear.

Practically all indicators used for the assessment of age structure of population point to the accelerating process of ageing of Slovakia's population. The mean age increased until 2001, compared to 1970, by almost 4 years, the median age increased by approximately 6 years. In long-term development, the mean and the median ages are higher in female than in male population, while the difference is deepening. One of the causes is the distinctly higher mortality of men at middle age (particularly the 40-55 years old group).

The index in the last years shows a change of the relation between the pre-productive and post-productive components of population. In 1970 the pre-productive component distinctly prevailed, the age index was around 121% and the number of children slightly prevailed over the persons in post-productive age even in 1991. In 2001 only 95 children corresponded to 100 inhabitants in post-reproductive age. Another, often used indicator is the Billeter's index, which reflects the quotient of the difference between the children and post-reproductive population to the reproductive component. The ageing process in this case is in inverse proportion to this value, so that the higher the value of Billeter's index, the younger the population. It can be also negative, when reflecting the excess of post-reproductive population over the children. In 1991, the index values were still positive and afterwards the negative values reflecting the increasing prevalence of the post-reproductive component over the pre-reproductive appeared. The age median (middle age of

population) is most often used for the expression of absolute ageing of population. It quotes the middle value, which divides the whole population into two equal parts in terms of number. It quotes the age, which was reached in the particular moment by half of population. In 1990, the median age reached 21.6 and 22.9 for men and women respectively. These values grew in the course of the century and reached 32.2 and 35.6 men and women respectively in 1999.

Regional dimension of population ageing in Slovakia

The differences in the age structure of the population between the particular regions of the Slovak Republic are similar to those between the European countries, while the rate of this regional differentiation is steadily increasing. The span of variation of values is increasing, the difference between the maximum and minimum value of the share of post-productive group in the districts was about 9 points in 1970, now it is more than 11 points. Likewise, the variation coefficient values increased from 2.2 in 1970 to 7.8 in 2001. This regional differentiation increases with the steady increase of the share of older inhabitants in all regions.

Map 1 represents the share of post-productive population in 1970. Differentiation between the southern districts on the one side, and the northern or eastern areas of Slovakia on the other, is evident. Map 2 illustrates the situation 30 years later with the same intervals maintained. It is obvious that only some districts preserved the lowest values of the post-productive population - those with the highest natality, the largest share of Catholic population or the largest share of Roma population. On the other hand, the regions with a high share of older population widened to the areas of western and central Slovakia. The most distinct changes, such as the increase in the share of the post-productive population group were recorded in marginal districts of the north-eastern Slovakia - Medzilaborce, Snina and the northern part of western Slovakia.

In the districts with the highest values of the share of old people, namely Bratislava, Nové Zámky, Levice, Myjava, and Nové Mesto nad Váhom the shares exceed the share of these districts in the total country's population. On the

other hand, the regions with the lowest share of older people in the north or east of the country, namely Námestovo, Trstená, Prešov, Bardejov, Kežmarok, Poprad, Spišská Nová Ves and Stará Ľubovňa were lagging behind the share of the districts in total population of Slovakia.

Several indices, characteristics and the ratio of the individual age groups are used to express the degree of ageing. The ageing index expresses the share of the pre-reproductive and post-reproductive components of the population, it comparatively precisely combines the information on development or spatial differentiation of population in these age categories. Map 3 represents the values of ageing index (as the share of post-productive and pre-productive population). It is evident that the areas of Nové Zámky and Komárno in the south of the western Slovakia steadily and in the long term perspective represent the core of the depopulation area with a high share of seniors and low values of other demographic indicators. The secondary core of depopulating area progressively and distinctly rises in the west of the country next to the border with the Czech Republic and it consists of the districts of Nové Mesto nad Váhom, Myjava and Piešťany. A distinct centre with a high share of old people, is also Bratislava and the marginal districts in the north-east of the country, above all that of Medzilaborce, demographically weakened by long-year emigration.

Changes in age composition of population in the 1990s also resulted in the economic loading of population in productive age by the non-productive population group. The dependence index is defined as the share of the sum of the pre-productive and post-productive portions of population. It expresses the overall loading of productive population by non-productive age groups, while the age limits of the individual groups are different in different countries. Progressive increase of the upper limit of the productive age group is also expected in Slovakia. The resulting dependence index value does directly express the level of population ageing, it is rather used in economically oriented analyses, for example when studying the possible social consequences of age structure changes.

Development of the dependence index values (I and II) and the index of overall economic dependence is influenced by the declining

representation of children in the population, stagnating representation of inhabitants in post-productive age (at the level of about 17%) and a slightly increasing representation of the productive component. While in 1991, there were more than 72 economically dependent persons per 100 inhabitants in productive age, this number decreased to almost 59 persons in 2001. Such a distinct decline was caused above all by the decreasing share of children in the population, which also reflects the dramatic decline of the dependence index I in the 1990s from 42 children per 100 productive persons in 1991 to 30 children in 2001.

Dependence index II, which expresses the number of inhabitants at the post-productive age per 100 persons at the productive age, practically stabilized in the 1990 (increase of the number of seniors was compensated by the increase in the productive group of population). Of course, it is favourable in economic terms, if a relatively low number of dependent persons correspond to the productive component of population. It is however probable, that this situation will change in the consequence of the expected accelerated demographic ageing by the beginning of the 21st century and the relative representation of the post-productive group of population will also grow to the detriment of the productive group. This will result in the change of the development trend of the economic dependence of population.

At present, approximately one million of retired persons live in Slovakia, 20 years this number should increase by about a third, the share of 60 and more year olds should oscillate between 21-22%. On the other side, far less people will reach productive age than the number of people who will move from this group to that of the post-productive age. This means, that the relatively declining productive population group will have to work for the increasing non-productive group (a slight increase of natality is also expected). In addition, if also the composition of these groups (increasing share of the Roma ethnicity) and high unemployment rate is taken into consideration, it will not be an easy process in spite of the increasing work productivity. The regional aspect is even more conspicuous. Districts with higher values of economic dependence of population, struggle with more serious economic problems compared to the prosperous districts in the west of

the country and the districts with large towns (Nitra, Žilina, Banská Bystrica, Zvolen and Košice).

From the point of view of regional development of health and social care services in the districts, the data on absolute numbers of old people living there are important. Apart from Bratislava and Košice the absolute numbers of old people in the individual district move between 3 200 (Banská Štiavnica) and 31 000 (Nové Zámky). It only proves the distinct imbalance of the new districts formed in 1996 in terms of the number of population, their structure and development.

As far as the social consequences are concerned, the districts with higher representation of old people should be considered problematic from two points of view. The more important of which, is that of the provision of health and social care services in a manner appropriate to the number of old people. But the higher number of old persons also affects the possibilities of development and functioning of the region. Old people represent a financially weaker category of society and if a high share of older people meets high number of unemployed in one district (nothing unusual in Slovakia), the result represents a double risk of stagnation for the particular region.

Conclusion

Population ageing in Slovakia as a whole on one side, and in its regions on the other, was not as dramatic until now as in some economically more advanced countries of western and northern Europe. However, demographic prerequisites for the development of this process were formed here in the past, and an acceleration of population ageing is expected in the forthcoming years.

Consequences of intensification of the ageing process of Slovakia's population also found their reflection at the demographic, socio-economic and psychological levels.

The decline of the children component will bring changes in the educational capacities at all levels and in the associated activities including the employment rate. The decrease of educational capacities should be compensated by the creation of a network of facilities for the activities of old people, which could simultaneously give opportunities, for example, to educational workers.

The increase of the number of people in the post-productive age group should be accompanied

by an increased social assistance policy. The productive component of population will have to provide for the needs of growing non-productive component. According to demographic prognoses, it is presumed that the annual increment of persons in the post-productive age will be higher than the annual decrease of the children component. This way, the growth of the number of retired persons, will not any longer be followed by the increase of the number of productive population.

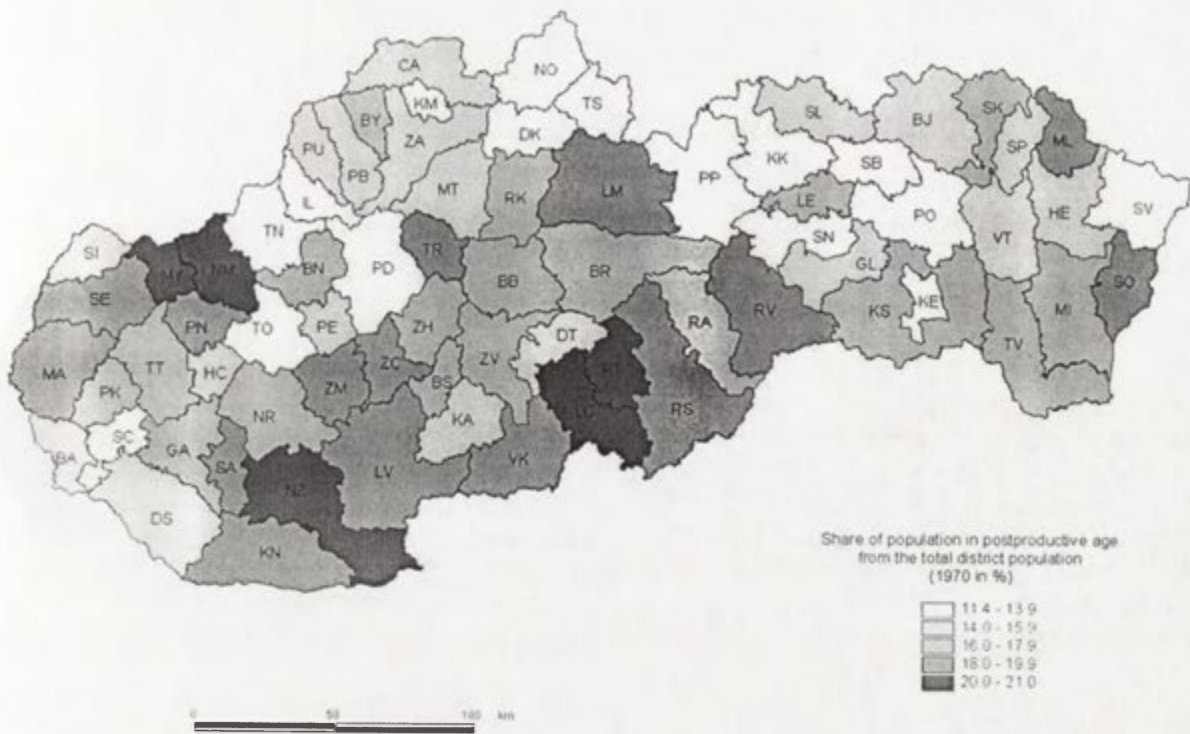
Psychological consequences also include the need of adaptation of the society to the increasing number of aged people. The reason, we start discussing population ageing in Slovakia is not the prevalence of older age groups now and in the near future, as when compared to most of the advanced countries of the European Union, Slovakia is still a relatively "young" country. The actual reason is connected with the rooted practice of the society's relation to its persons at age, which perhaps realizes its drawbacks, but also has to realize its economic possibilities. It seems, that Slovakia has had enough time to prepare its social policy for the consequences of population ageing after 2000 in the 1990's. The time was wasted and our society with numerous additional problems, will have to face the steadily proceeding wave of population ageing. It is necessary to admit and tackle the problem and to consider possible solutions.

The present profile of the age structure of Slovakia's population, will distinctly determine the changes in age composition of population in the following decades. The "strong" (in terms of natality) years of population wave of the 1970's represent a certain restraint in further procedure of demographic ageing. They reached the middle age category, which on the one side means decrease of the children component but at the cost of higher increase in the category of 15-59 year olds. In the first years of the 21st century (especially after 2005), the demographic development will be accompanied by a stagnation in the share of the 15-59 age group and an increase of the share of population aged 60 and more. This will be the consequence of the shift of numerically potent generations from the after-war years to this category. Moreover, under the effect of a lower number of mothers and a low level of fertility, the representation of the children component will also decrease.

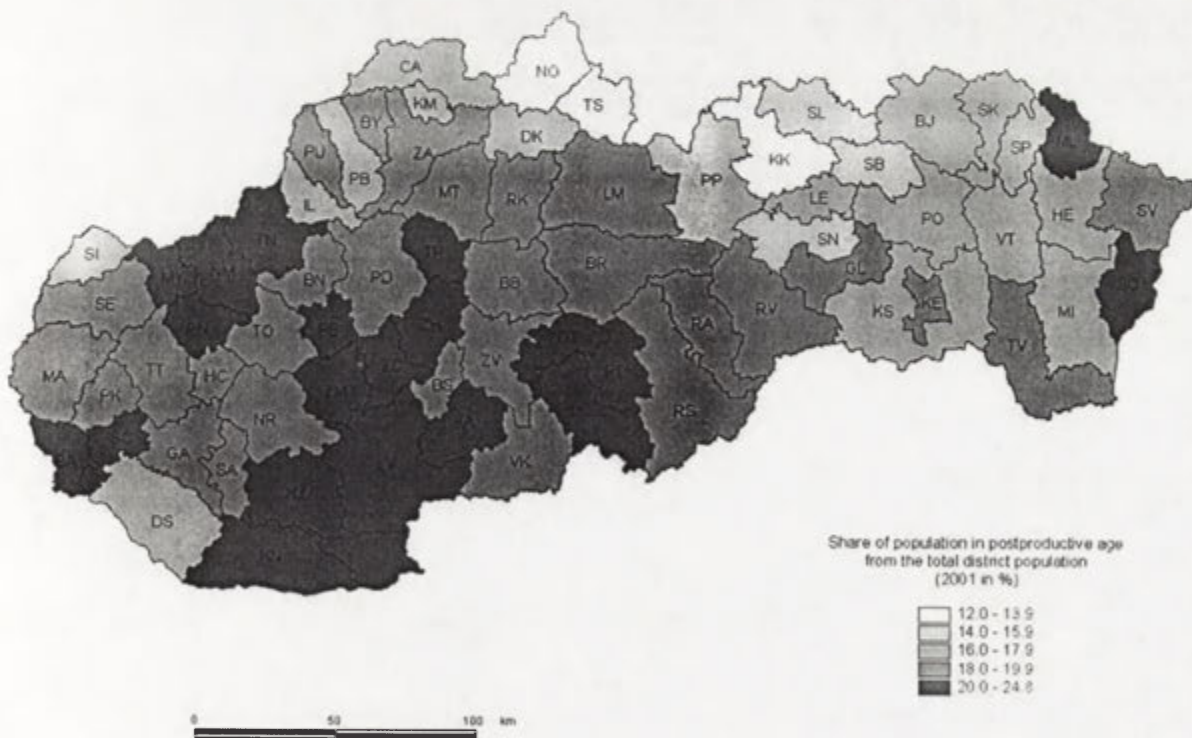
Population ageing is influenced by factors of very different nature. The author of this article focused his attention only on demographic factors, without ambitions to analyze the economic, social or psychological circumstances which undoubtedly also require further and more detailed studies.

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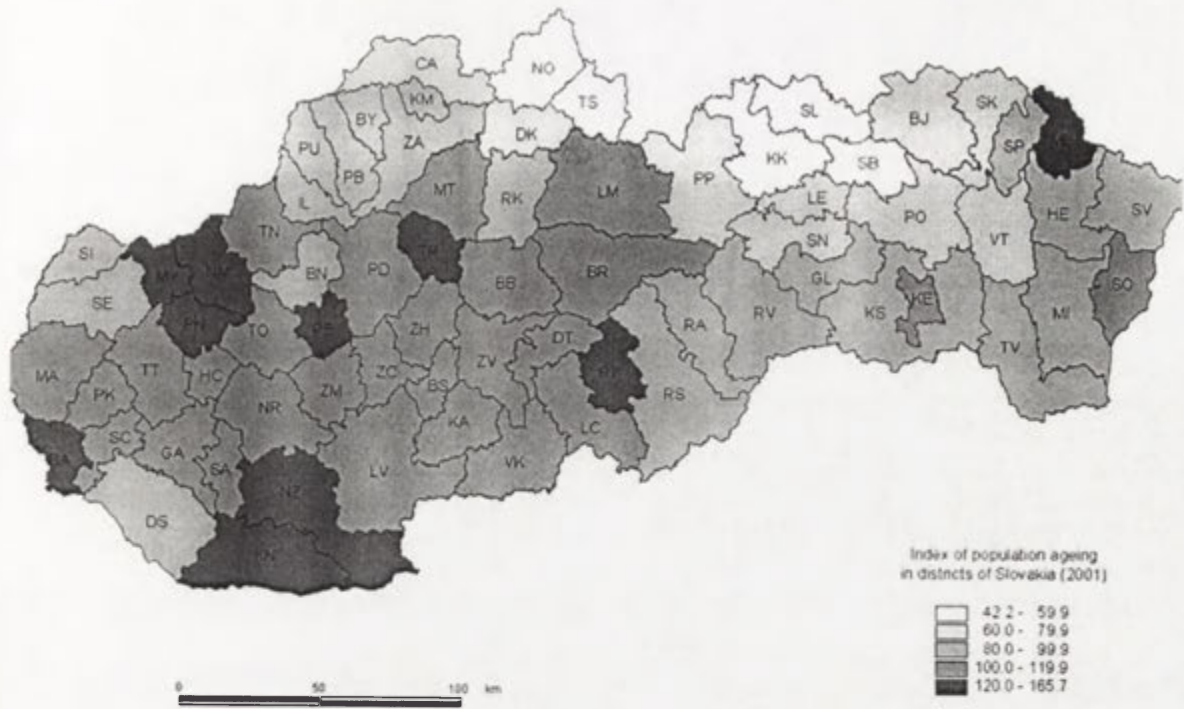
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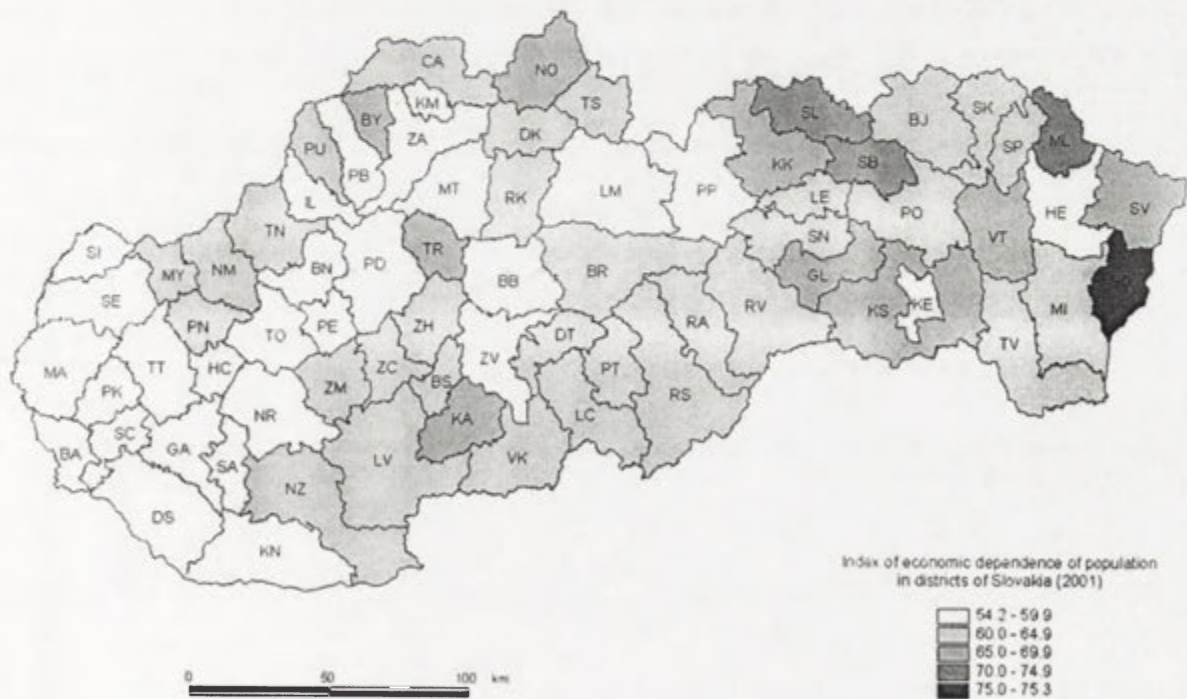
Map 1. Share of population in postproductive age from the total district population 1970 (in %)



Map 2. Share of population in postproductive age from the total district population 2001 (in %)



Map 3. Index of population ageing in districts of Slovakia, 2001



Map 4. Index of economic dependence of population in districts of Slovakia, 2001



Figure 1: Map of the study area (1:100,000)



Figure 2: Map of the study area with grid (1:100,000)

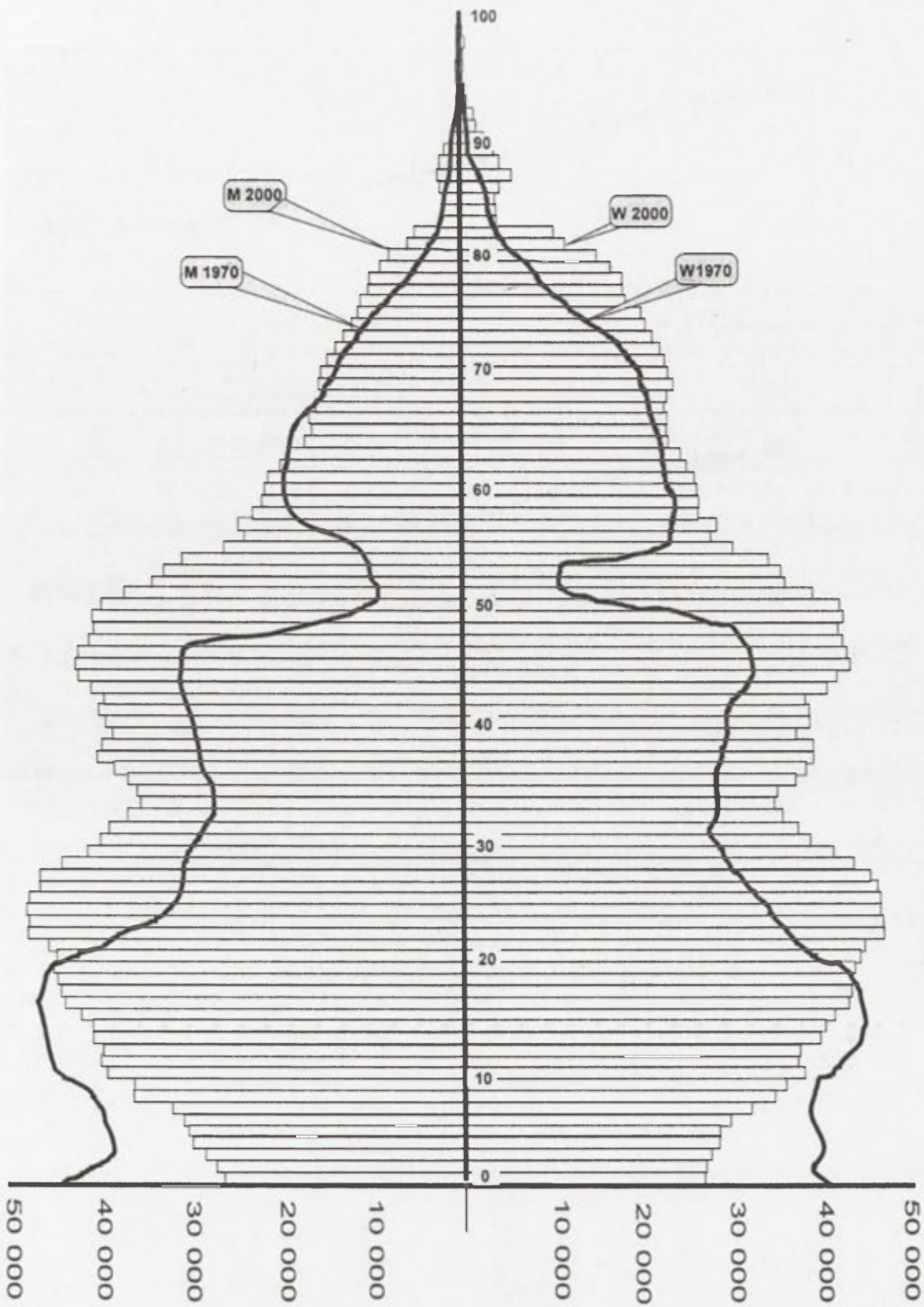


Fig. 1. Age structure of population in Slovakia in the years 1970 and 2000

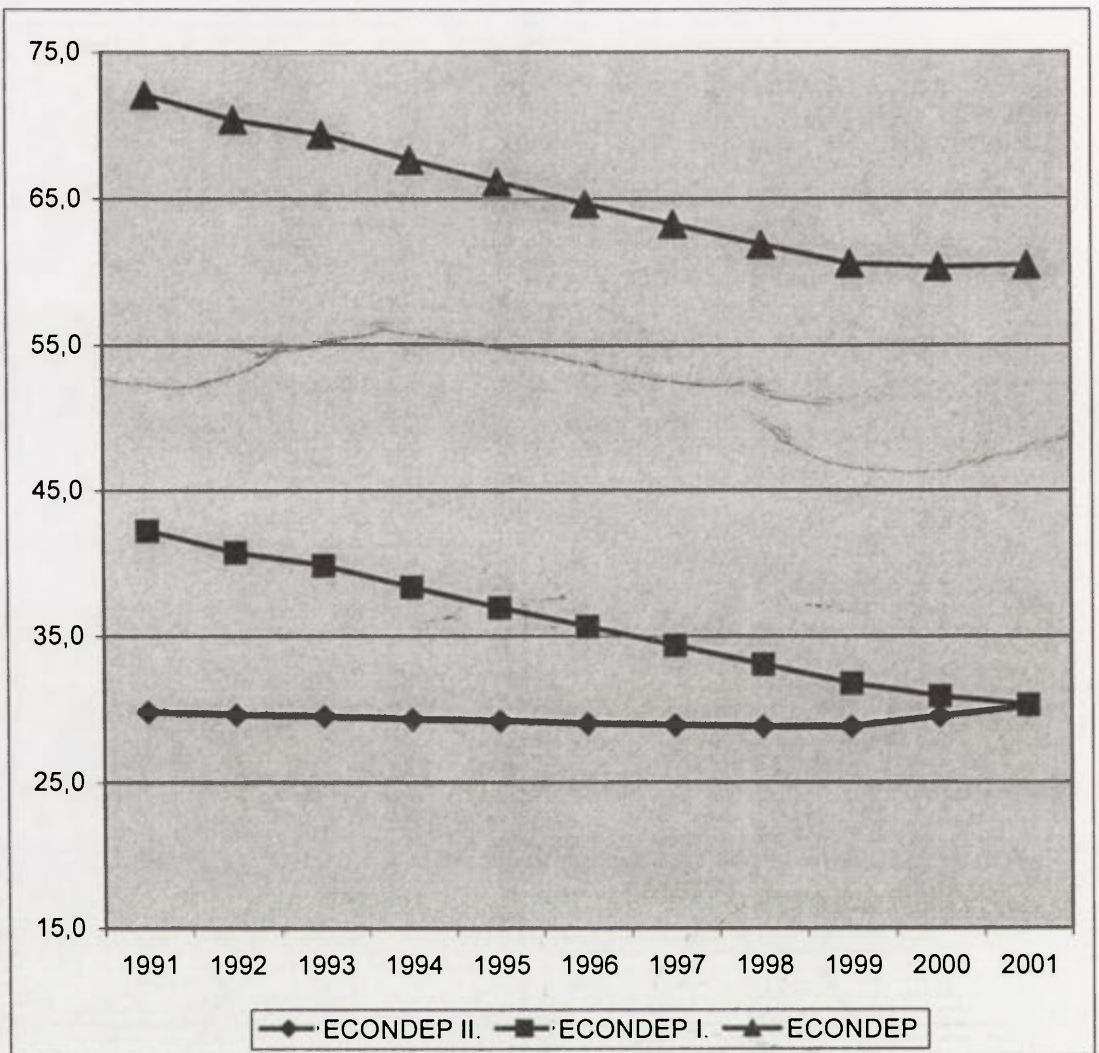


Fig. 2. Index of economic dependence
Slovak Republic, 1991-2001

Spatial disaggregation and spatial disparities: unemployment in Slovakia

Vladimír Székely

Introduction

Slovakia, as a markedly differentiated territory, requires contemporary research concentrated on identification and explanation of spatial disparities of socio-economic nature, in particular provoked by transition to market economy.

Due to the wide publicity given to this scientific knowledge on the immanent spatial differentiation of Slovakia, the demand for spatially structured information has increased both on side of expert and laymen. The cause of increasing interest in these topics is the general recession of the Slovak economy manifested by an almost continuous deepening of spatial disparities in economic performance of administratively defined spatial units (often referred to as „opening of economic scissors“). The units are recorded by the regionally oriented statistical inquiries of the Statistical Office of the Slovak Republic (i.e. administrative regions) or the National Labor Office of the Slovak Republic under regional rates of gross domestic product per inhabitant or regional unemployment rate (i.e. districts or administrative regions).

The interest in the study of spatial disparities at present, moves more and more from the theoretical approach to the application level. Analyses of spatial disparities identify regions, which can apply for state financial aid (Ex. regions with high unemployment rate) by presenting projects or ask for potential assistance from the European Union (for instance less developed regions). The Slovak Republic applies for the EU accession and its regional policy (financial support in form of structural funds) may also apply to Slovakia after accession.

Analyses with application of quantified indicators of socio-economic development show traits of irregularity not only between the territorial-administrative units. Empirical knowledge teaches us that the inner imbalance of administratively defined spatial units is purely natural. These units are often formed on the basis of political criteria and interests, sometimes ignoring the objective existence of historically formed spatial linkages. It is often the case, that economically developed parts, such as towns representing centers of population concentration, economic activities and social life on one side, co-exist in one spatial administrative unit with economically less developed parts with settlements at a lower hierarchic level (rural settlements) with source population potential regularly commuting and thus saturating production and service needs in the centers of economic growth.

Let us imagine the disaggregation or division of the spatial whole into smaller parts. According to Dunford (1993), the increase of the level of spatial disaggregation will manifest by an increase of spatial disparities. One of the causes lies in the so far chosen concentrating location preference of economic activities, with the aim to seek agglomeration advantages and creation of territorial- production groups. Market economy introduces powerful rules of location choice, which have an effect on the concentration of key economic functions with above-average number and quality of jobs in core areas (from the viewpoint of worker's qualifications and his financial remuneration). Activities not characterized by a high level of value added per capita or those, which do not create servicing networks securing the development of metropolitan functions of the core, are pushed out from this space.

The second cause is closely connected with spatial aggregation and disaggregation. There exist areas of urban and rural character in regions along with high levels of aggregation, while disparities between the individual regions are averaged and little differentiated. With decreasing level of aggregation, the differentiation of the regional economic area increases. It is obvious then that the measured regional disparities will not only depend on the level of spatial concentration of economic activities, but also on regional division of the state, i.e. number and size of regional units and the particular choice and delineation of their boundaries (Dunford 1993).

Aim of the paper and statistical data

Dunford created his theoretical constructions on generalizations of empirical knowledge. The primary aim of this study is to verify the validity of Dunford's assertions for the territory of Slovakia. The decisive impetus of research was spatial disaggregation of Slovakia, the product of the new territorial-administrative division of Slovakia, and the existence of new spatial referential units linked with aggregated statistical data. The data on unemployed and the level of unemployment were used as statistical source for verification of the effect of spatial disaggregation in order to reveal and assess dynamics of inner differentiation of the original (former) administrative units districts. The data set, used in time-spatial analysis of unemployment, consisted of monthly rates of unemployment registered by the National Labour Office of the Slovak Republic (NLO SR – www.nup.sk) in Bratislava in the period between January 1997 and December 2001 included according to the administrative units (districts). Basic questions put in the study, were connected with the level of inner differentiation of the supply component of labor markets (persons registered as unemployed) of the former districts. We tried to find answers to the following questions: How were the former districts spatially disaggregated? Was distribution of jobs in the territories of the former districts uniform or was it concentrated into selected centres? How large was the inner differentiation of the former district labor markets, how large are the current spatial disparities? Did inner differences in labor markets of the former

districts level up or did they deepen in the 1997-2001 study period? To what extent is the development of district unemployment rates stable in time? Did spatial disaggregation influence the increase or decrease of stability on new district labor markets? What was the unemployment level on labor markets of particular districts compared to the average of the country? Which territory yielded a better picture of the district economy becoming more attractive for potential investors under the effect of spatial disaggregation and in comparison with the past, and which territory yielded a worse economic picture under the same effect?

Spatially differentiated unemployment is statistically registered since 1990 in Slovakia, while spatial (regional) units always coincided with administrative units - districts or administrative regions. Social urgency of the problems and the existence of a relatively adequate statistical basis almost immediately provoked interests among Slovak scientists in the spatial analysis of unemployment and spatial labour markets (Ex. Očovský 1992; Bezák 1995-96; Brhlovič 1944; Ochotnický et al. 1995; Rajčáková 1998; Kollár, Podolák, Székely 1998; Székely 1999, 2001). As unemployment was and still is one of the most important economic and social consequences of transition, results of analysis are interesting not only for the Government of the SR and the National Council of the SR, along with the competent Ministries (including the Ministry of Construction and Regional Development of the SR, Ministry of Labour, Social Matters and Family of the SR, Ministry of Economy of the SR, Ministry of Finances of the SR) but also for the individual political parties with the aim to prepare proposals of labor market policy (the set and sequence of the individual practical economic and political steps leading to reduction of unemployment through spatial and professional mobility of labor and creation of the new jobs).

The early studies also pointed to incompatibility of the delineated spatial units. Urban districts of Bratislava and Košice, the territories of which consisted only of town municipalities in both cases, existed in Slovakia until 1996. It is obvious that these urban districts were practically incomparable with spatial units, which were formed by joining the administrative territories of both urban

and rural settlements. The studies solved this problem by joining urban districts and their rural counterparts (Bratislava - rural area, Košice - rural area) into one spatial unit (Bezák 1995-96). This way, authors realized (at least implicitly) the dependence of numerical values of spatial unemployment rates on territorial-administrative division of the state, on size and shape of the delineated spatial units (districts).

New territorial-administrative division of Slovakia and examples of consequences brought about by disaggregation of space

On July 26, 1996 the Act of the NC SR No. 221 on territorial and administrative division of the Slovak Republic entered in effect. Following the Act, eight administrative regions (kraj) and 79 districts (okres) were established. The administrative regional structure was renewed after six years (until 1990 there were four administrative regions in Slovakia) and the former 38 districts were replaced by the new district structure, while the number of districts equaled more than twice the previous number. Application of the new law meant a division of the territory of Slovakia into a larger number of smaller spatial units, it was spatially further disaggregated. Spatial disaggregation called for new regional (on the level administrative region and district) statistical inquiry and records, which were introduced in 1997. New numerical values of the selected regional indicators of socio-economic level of the development of administratively identified spatial units are very detailed and in particular describe the inner differentiation of Slovakia. The data was and is however accessible only in an aggregated form, regardless of the territorial-administrative division. If spatial disaggregation at the hierarchic level lower than that of the state (district level) was realized without territorial changes, it is possible to study the inner differentiation of the original, larger district units.

As already said, the new territorial-administrative division of Slovakia created a new 79-item district structure from the former 38-item structure. Out of the present 79 districts more than a half (43) are such which originated depending on spatial linkages and political interests by simple

division of territory of 16 former districts. The former town districts Bratislava-mesto and Kosice-mesto were divided into 5, respectively 4 new town districts. The remaining 14 former districts were divided into 2-3 new districts while the sum of the areas and contents of their territories coincides with areas and contents of spatially disaggregated former districts (table 1, map 1). These districts were used for the case analysis of the computed inner differentiation of the changes of unemployment rate in the territory of (at present) not-existing former districts with the aim to point to variability and dynamics of spatial disparities in dependence on the way of delimitation of new districts. The author of the paper tries to point to immediate consequences of the important political decision, manifested by the enlargement of spatial disaggregation of the territory of Slovakia, on the relative improvement or relative deterioration of the position of the individual territorial parts of former districts on the labor market. Improvement or deterioration of the position of the newly formed spatial units on the labor market is signaled by a decrease or increase of district rates of unemployment in comparison with calculated values of unemployment rate for non-existing former districts.

How was the territory of 16 former districts situated first of all in the northern half of Slovakia (comparison of the area size of districts of northern and southern Slovakia with regard to the concept of spatial equity is interesting!) spatially disaggregated? Using selected statistical indicators and the delineated area aligned to their numerical values it is possible to obtain the picture about consequences of spatial disaggregation and simultaneously source material for evaluation of correctness of delimitation (Fig. 1). All four statistical indicators used (area of territory, number of population and number of economically active population in 2001, and the computed mean monthly number of unemployed in the period 1997-2001) univocally indicate a formation of unequal spatial units. It is quite apparent in case of former districts of Martin, Žilina, Nitra, Prešov, and Čadca. The newly established districts with old district centres, from which the peripheral parts of the territory gravitating to smaller settlements were separated and their overall position in regional structure of Slovakia strengthened by

adjudication of larger area with larger population number. District Martin, for instance, lost almost 15% of population and, remarkably, only 14% of unemployed by separation of economically less developed mountainous part of its former territory (about 35% of area) and establishing of the new district of Turčianske Teplice. The new district of Bytča, was established in the same way: by the separation of the economically less developed part of the district. Its area represents about a quarter of the area of the former district Žilina, which lost about 17% of population and approximately the same share of unemployed by establishing the new district Bytča. Out of all studied districts, the former district Cadca lost the smallest territory by the new territorial-administrative division when 19% of its territory, but more than 26% of population and 30% of unemployed, passed to the new district of Kysucké Nové Mesto. The largest disproportion between the share of population and share of unemployed originated by spatial disaggregation of the former district of Banská Bystrica, which lost by separation of the new district more than 60% of its area, 37% of population and as much as 59% of the mean monthly number of unemployed. The quoted numbers of selected statistical indicators unusually convincingly illustrate the socio-economic differentiation of the western and eastern parts of the former district of Banská Bystrica.

On the other side, the former districts Považská Bystrica and Dolný Kubín especially manifest signs of comparatively balanced spatial division. Three new districts were compiled from the former district Považská Bystrica: Považská Bystrica, Ilava, and Púchov, territories, population and the average monthly number of unemployed of which were divided in ratios 39:30:31, 38:36:26, and 47:26:27 respectively. The former district Dolný Kubín, also disaggregated into three districts (Dolný Kubín, Námestovo, and Tvrdošín), shows similar signs of a comparatively balanced spatial division. Its territory was divided in terms of area and population in ratios 30:41:29, 30:43:27 respectively. The five year development on district labor markets yielded the share of the average monthly number of unemployed in ratio 31:43:26.

Effect of spatial disaggregation on genesis of spatial disparities – example of unemployment

In average almost 450 thousand registered job seekers applied for employment monthly during the 1997-2001 study period. However, the mean monthly number of job seekers practically does not state anything about the temporal variation of the number of unemployed, especially, if we realize that the difference between the lowest (320 thousand) and the highest monthly number of registered unemployed (561 thousand) represents more than 241 thousand persons (almost 43 % of the maximum). Distinct monthly differences in absolute number of unemployed are also reflected in the computed unemployment rates. The mean monthly unemployment rate in Slovakia computed for the 1997-2001 period reached 16.92 %, but the difference between the lowest (12.30 %) and the highest (20.81 %) values represents as much as 8.51 points (almost 41 % of the maximum). Temporal stability of unemployment level can be characterized by means of computation of standard deviation from the mean unemployment rate. The computed value 2.73 of standard deviation serves for comparison of temporal variations of unemployment rate in selected district labor markets with national average. Likewise, the aim of other computed national values quoted in table 2 is to provide the standard for comparison of the district values with the national ones.

As mentioned above, this paper primarily focuses on research of the phenomenon of unemployment (number of unemployed, unemployment rate and its stability in terms of time) on labor markets of the territorial-administrative units (districts), which were directly influenced by spatial disaggregation in the consequence of the new territorial-administrative division of Slovakia. All computed values for the identical territory representing 16 former districts or 43 existing districts, which are concentrated in the north-western part of the country are, like the computed values for Slovakia, summarized in table 2. Graphic representation of the effect of disaggregation of former districts on the genesis of spatial disparities can be studied on example of district unemployment rates (Fig. 2). The figure makes it possible to observe

and compare variation of the computed unemployment rates of not-existing administrative units (former districts) not only with the official unemployment rates of the existing districts, but also with those of the whole country. Compared percentages of differences of district and national monthly unemployment rates, $du_{\text{district}} = (u_{\text{district}} - u_{\text{Slovakia}})$, became the basis for generation of a series of 16 graphs which made it possible to identify the scope of inner differentiation of labor market supply (unemployed) and trends of increase (divergence) or decrease (convergence) of inner differences. Application of the district unemployment differential, clearly shows not only the magnitude of differences between the district unemployment rates and the national unemployment rate, but simultaneously identifies the categories of “winners” and “losers” in the set of 16 former or 43 current district labor markets. The “winner” is the district whose unemployment rate is lower than national, while the district with unemployment rate higher than national is the “loser”.

Average monthly unemployment rate in Slovakia computed for the 1997-2001 period reached 16.92%. The following numbers also show the deepening of its district differentiation in the study area under the effect of the new territorial-administrative division. Out of 16 former districts where the difference between the highest (Spišská Nová Ves) and the lowest unemployment rate (Bratislava-city) should be 19.64%, as much as 9 districts should have a lower mean unemployment rate, that is 56%. Out of 43 existing districts where the difference between the highest (Kezmarok) and the lowest unemployment rate (Bratislava IV) should represent as much as 21.75%, 25 districts show lower mean unemployment rate in study period, that is 58%. Among them, the most favorable situation is in urban districts of Bratislava, where the district Bratislava IV with mean monthly unemployment rate of 4.06% is the Slovakia’s minimum (Note: In regional divisions, the individual urban districts of Bratislava and Košice represent a special category of spatial units lacking an adequate, economic-geographical totally different rural counterpart – it means that town districts are practically incomparable with the rest of districts).

Out of the districts alternating urban and rural areas, that of Ilava showed the lowest average unemployment rate for the 5-year study period. Its average monthly rate of 8.15 % classified the district among the “winners”, while this rate is by more than 8.7 points better than the national average unemployment rate. However, it must be emphasized that the district of Ilava, which was established by the division of the territory of the former district Považská Bystrica, is in a way specific. The seat of the district administration is neither the largest town, nor the most important economic core of the territory. The linkages to the adjacent economically diversified district of Trenčín are very strong in terms of commuting to work. District Ilava is characterized by an unusually high level of urbanization. As much as 70% of its population live in 3 towns: Ilava, almost five-time larger Dubnica nad Vahom, and in Nová Dubnica. Each of the towns has a sufficient supply of jobs available above all in industry (Ilava – food processing industry, Dubnica nad Vahom – machinery, and Nová Dubnica – electromechanical and electronic industries). The spatially disaggregated former district Považská Bystrica is characterised by divergent tendencies (Fig. 2) influenced above all by the relative decrease of unemployment rate in district of Ilava and copying the development of the national trend in the district of Považská Bystrica. Even in spite of the gradual widening of district differences in unemployment rates, none of the three newly established districts are, in national terms, among “losers” on the labor market.

Spatial desegregation made it possible to identify the largest inner differences on labor market of the former district Banská Bystrica. The western part, represented by the current district Banská Bystrica reached favorable average unemployment rate of 8.96% in study period, which meant that the newly established territory improved its score by more than 4 points compared to original borders. On the other hand, the eastern, economically less developed part of the former district Banská Bystrica was included into the district Brezno, with the district town lower in the hierarchic ranking of Slovak towns. The loss of the original district town with concentration of economically diversified jobs has immediately manifested in the increase of the

unemployment rate. The average monthly unemployment rate in the newly formed district Brezno (19.31%) is higher by more than 6 points compared to its previous situation when its job seekers were included into the former district of Banská Bystrica. The difference in average unemployment rate between the two newly created districts (10.35%) is the largest of all former spatially disaggregated districts, while none marked tendencies to convergence are observed for the 5-year study period (Fig. 2). Division of the former district Banská Bystrica into two economically unequal parts, supports Dunford's conclusions and explanations (1993). Concentration of economic activities in the largest town of the delineated territory with the aim of advantageous networking of companies and search for savings, which agglomeration offers, is precisely most characteristic for the former district of Banská Bystrica.

The similar univocal spatial difference in unemployment rates provoked by unilateral strengthening of tendencies to concentrate economic activities into the cores of former district and marked deepening of differences between their cores and peripheries is observable in case of former districts of Poprad, Prešov, Čadca, Žilina, Ziar nad Hronom, and Liptovský Mikuláš (Fig. 2). Their spatial disaggregation and establishment of new districts led to strengthening of economic prosperity of their cores in nodal regions of former district towns and to economic backwardness of their peripheral parts with new district towns (if economic prosperity or economic backwardness is measured by unemployment rate).

On the other hand, the theoretical presumption of reaching higher economic prosperity of core parts of some other former districts and fixation of economic backwardness of their peripheral parts under the effect of spatial disaggregation was not confirmed. Districts with district towns with poor branch and size diversity of economic activities are the typical examples. Employment of inhabitants of these towns and their hinterlands was and still is based on existence of small, but from the point of view of employment decisive, large industrial companies. Gradual reduction of workers in these companies in the

consequence of restructuring provoked by difficulties with sales of the original export commodities

(Ex. defense industry) and poorer capacity of the region to generate new jobs, are the causes of higher average unemployment rate in the cores of former district. Separation of the peripheral parts and establishment of new districts meant that the average unemployment rate increased in core territories. Territories of former districts Považská Bystrica, Martin, Dolný Kubin, and Spišská Nová Ves are examples.

The analysis of stability of the unemployment level (it is expressed as standard deviation of the average unemployment rate in Table 2) in individual former and existing districts in the studied period, also offers interesting results. Results suggest that regardless of the size or shape of the territorial-administrative unit; the increase of average unemployment rate was accompanied by an increase of its instability in the majority of cases. The largest fluctuations in time, that is instability of unemployment level, was typical for the newly-established district of Zlaté Moravce, where extreme fluctuations in the individual months amounted to as much as 17.41% and standard deviation, describing variations of unemployment during the whole study period, was 4.94. The territory of the former district Nitra which was divided by spatial desegregation into the mutilated district Nitra and the new district Zlaté Moravce would show more stable course of unemployment (3.26 standard deviation) and the difference between the highest and lowest monthly unemployment rates would not be as high (10,62%). It is evident from Fig. 2 that in the course of the studied period those differences deepened between the districts Nitra and Zlaté Moravce. An almost continuous, and compared to national figures, substantially more dynamic increase of unemployment rate in district Zlaté Moravce was apparently decisive. Among the causes such should be mentioned as: the irregular distribution of work opportunities in the territory of the former district of Nitra, the vulnerable branch specialization of the district (electromechanical industry), and unwillingness of unemployed to commute to larger distances requiring higher financial and time investments.

The course of unemployment during the studied period in the territory of the former district Ziar nad Hronom was the least stable. It was highly unstable in all three newly established districts (Ziar nad Hronom, Banská Stiavnica, and Zarnovica), while the largest monthly fluctuations characterized the district Zarnovica. The urban districts of Bratislava and the newly established districts of the former district Trnava (Trnava, Piešťany, and Hlohovec) were characterized by the highest stability of unemployment rate. The most similar differences in fluctuations of unemployment rate (approximately the same values of standard deviation) occurred in the newly established districts of the former district Žilina – in the districts Žilina and Bytca. Results revealed that with increasing spatial desegregation, spatial differences in stability of unemployment rate also deepen. With several exceptions (Ex. the district Ilava as part of the former district Považská Bystrica) the rule applies that the stability of unemployment rate in districts which were established on peripheral territories of former districts, was lower in the studied period and with higher value of standard deviation than in districts formed from nodal regions of the former district towns with higher diversification of their economic bases. These “core” districts represented territories with a higher stability of unemployment rate in the years 1997-2001 expressed by lower value of standard deviation.

Conclusion

In Slovakia, like in all its regions, conjuncture unemployment (D. Gleave, D. Palmer 1980) occurred in the studied period provoked by insufficient demand of labor. The aggregated supply of available labor is higher on the labor market in

certain areas than the aggregated demand for it. Regional differences also deepened in consequence of spatial desegregation in connection with the new territorial-administrative division of Slovakia, which revealed disguised and often-marked intraregional differentiation. From the viewpoint of reported unemployment rate, undesirable official district rates appeared expected by experts in regional structure of Slovakia. Reduction of spatial disparities of unemployment rate through spatial and professional mobility of labor is limited in Slovakia in consequence of national redundancy of the labor force and shortage of jobs. The solution is partially possible by elimination of unofficial work and support for the generation of jobs with assistance of firms and efforts in their rational regional distribution. Experience obtained abroad showed that the generation of jobs is above all reached through small and medium enterprises. Rational allocation of financial sources used for generation of jobs is reached by means of regional policy. If the inflection point is to be reached in the development of unemployment in Slovakia and in the deepening of its spatial disparities, substantial improvement of conceptual and implementing efforts is necessary in both above-mentioned areas of economic policy. Although it is only one of the paths, which can, but does not necessarily have to, yield the desired effect.

This contribution is part of the project “Regional Structure and Territorial-Administrative Division of Slovakia” No. 2/705/02. The author thanks to the VEGA Slovak Grant Agency for its financial support.

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Table 1. List of former districts, territorial area and shape of which are identical with the territorial area and shape of the sum of n-number (n = 2-5) of the present districts

Districts in the years 1960-1996	Current districts (1996-?) and their abbreviations				
Trnava	Trnava (TT)	Piešťany (PN)	Hlohovec (HC)		
Nitra	Nitra (NR)	Zlaté Moravce (ZM)			
Topoľčany	Topoľčany (TO)	Partizánske (PE)	Bánovce nad Bebravou (BN)		
Považská Bystrica	Považská Bystrica (PB)	Ilava (IL)	Púchov (PU)		
Žilina	Žilina (ZA)	Bytča (BY)			
Čadca	Čadca (CA)	Kysucké Nové Mesto (KM)			
Martin	Martin (MT)	Turčianske Teplice (TR)			
Dolný Kubín	Dolný Kubín (DK)	Námestovo (NO)	Tvrdošín (TS)		
Žiar nad Hronom	Žiar nad Hronom (ZH)	Žarnovica (ZC)	Banská Štiavnica (BS)		
Banská Bystrica	Banská Bystrica (BB)	Brezno (BR)			
Liptovský Mikuláš	Liptovský Mikuláš (LM)	Ružomberok (RK)			
Prešov	Prešov (PO)	Sabinov (SB)			
Poprad	Poprad (PP)	Kežmarok (KK)			
Spišská Nová Ves	Spišská Nová Ves (SN)	Gelnica (GL)	Levoča (LE)		
Bratislava - mesto	Bratislava I (B1)	Bratislava II (B2)	Bratislava III (B3)	Bratislava IV (B4)	Bratislava V (B5)
Košice - mesto	Košice I (K1)	Košice II (K2)	Košice III (K3)	Košice IV (K4)	

Table 2. Effect of administrative division on changes of district unemployment rates, 1997-2001

District	Average monthly number of unemployed in the years 1997-2001	Difference (max.-min.) monthly number of unemployed in the years 1997-2001	Average rate of unemployment in the years 1997-2001	Difference (max.-min.) monthly rate of unemployment in the years 1997-2001	Stability of the rate of unemployment in the years 1997-2001 expressed by standard deviation
Hlohovec	2960	1896	12,63	7,84	2,42
Piešťany	2996	1854	9,42	5,53	1,72
Trnava	7772	3497	11,97	5,44	1,88
Trnava	13728	7058	11,43	5,73	1,91
Bánovce nad Bebravou	3163	2372	16,48	11,76	3,66
Partizánske	4698	3257	18,89	11,74	2,93
Topoľčany	6161	3630	16,52	9,15	2,72
Topoľčany	14022	8530	17,24	9,78	2,92
Čadca	7498	5562	17,74	11,98	3,43
Kysucké Nové Mesto	3253	2134	20,67	12,35	3,52
Čadca	10751	7673	18,53	12,03	3,42
Bytča	2163	1682	13,88	10,52	2,83
Žilina	10341	7363	12,91	8,65	2,86
Žilina	12504	8755	13,07	8,54	2,82
Liptovský Mikuláš	4429	3089	11,70	8,30	2,38
Ružomberok	4569	3108	14,69	9,67	2,96
L.Mikuláš	8998	5821	13,05	8,39	2,64
Banská Bystrica	4916	3372	8,96	6,89	2,27
Brezno	6943	4691	19,31	13,26	3,93
B.Bystrica	11859	7805	13,05	9,26	2,91
Martin	7710	4956	14,77	9,00	2,98
Turčianske Teplice	1233	1152	14,00	12,18	3,66
Martin	8943	5849	14,66	9,09	3,04
Ilava	2465	1063	8,15	3,66	0,90
Považská Bystrica	4508	3374	13,56	9,54	2,85
Púchov	2562	1747	11,27	7,32	2,08
P.Bystrica	9535	5495	11,07	6,20	1,87
Nitra	11660	6319	15,04	8,96	2,80
Zlaté Moravce	4238	3874	19,69	17,41	4,94
Nitra	15898	9982	16,06	10,62	3,26
Dolný Kubín	3469	2511	19,41	13,40	4,02
Námestovo	4684	3042	19,01	11,60	3,07

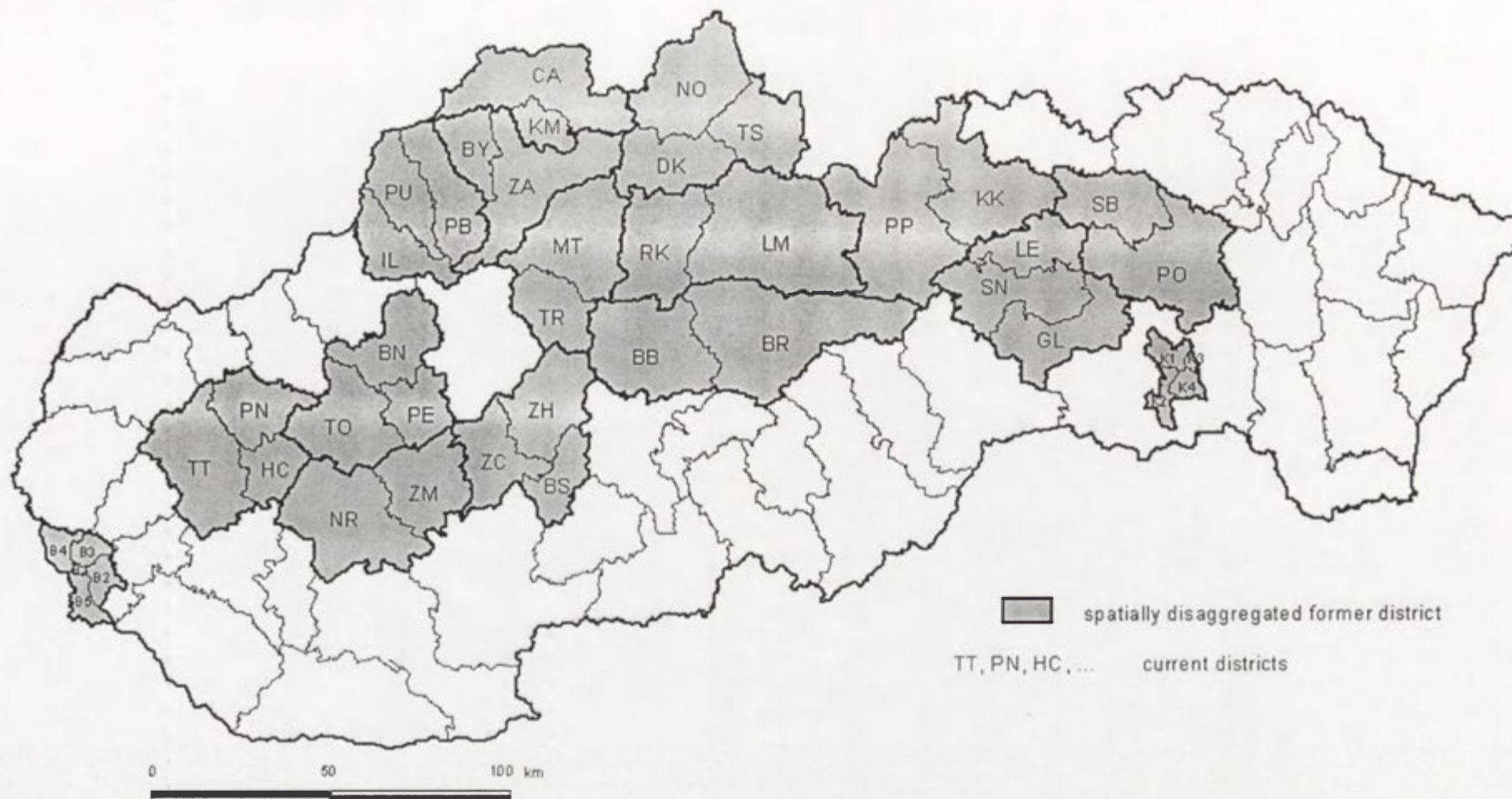
Tvrdošín	2860	1875	18,40	12,02	3,35
Dolný Kubín	11012	6944	18,97	11,47	3,23
Banská Štiavnica	1369	855	17,21	11,24	3,42
Žarnovica	2770	1876	20,59	13,25	4,44
Žiar nad Hronom	3753	2491	16,60	11,39	4,03
Žiar n/Hronom	7892	5079	17,93	11,65	4,01
Prešov	15083	8361	20,17	9,89	3,28
Sabinov	6435	3809	25,05	12,07	3,66
Prešov	21521	12020	21,42	10,29	3,33
Kežmarok	8307	4140	25,81	9,94	3,24
Poprad	9475	4609	18,71	7,45	2,35
Poprad	17782	8374	21,47	8,16	2,63
Gelnica	3463	2384	24,65	17,04	4,72
Levoča	3330	1747	23,12	11,83	3,58
Spišská Nová Ves	10690	4942	24,99	11,68	3,53
Spišská N. Ves	17482	9034	24,55	12,76	3,73
Košice I	4591	2933	14,79	7,72	2,44
Košice II	5658	3702	14,57	8,81	2,87
Košice III	3104	2312	19,10	14,47	4,55
Košice IV	4448	2842	15,23	9,95	2,95
Košice-mesto	17801	11596	15,42	9,42	2,98
Bratislava I	1133	828	5,90	5,48	1,75
Bratislava II	3050	1683	4,96	2,43	0,72
Bratislava III	1317	1132	5,02	4,56	1,18
Bratislava IV	2103	1185	4,06	2,43	0,70
Bratislava V	4501	3245	5,20	3,89	1,04
Bratislava-mesto	12104	6997	4,91	2,71	0,87
Slovensko	449691	241103	16,92	8,51	2,73

Legend:

Trnava, ..., Bratislava V = current districts

Trnava, ..., Bratislava-mesto = districts in the years 1960-1996

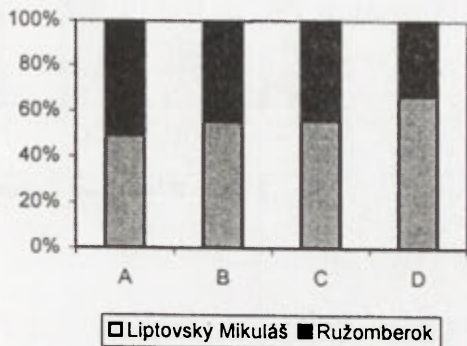
Source: Own calculations based on statistical data from National Labour Office of Slovak Republic.



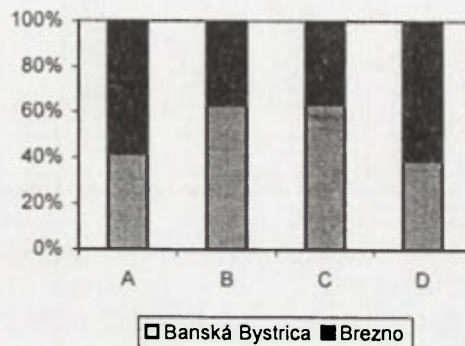
Map 1. Spatially disaggregated territories of former districts, territorial area and shape of which are identical with the territorial area and shape of the sum of n-number ($n = 2-5$) of the present districts

Fig.1. Statistical descriptions of spatial disaggregation:
case study of 16 former Slovak districts

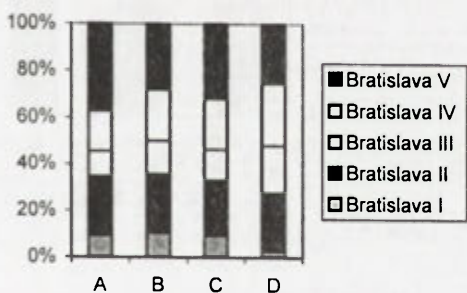
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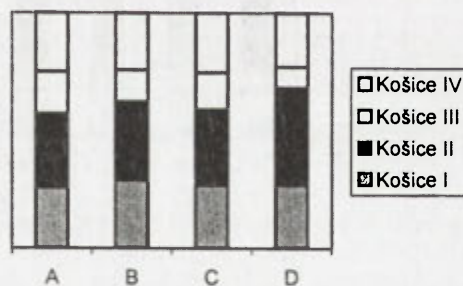
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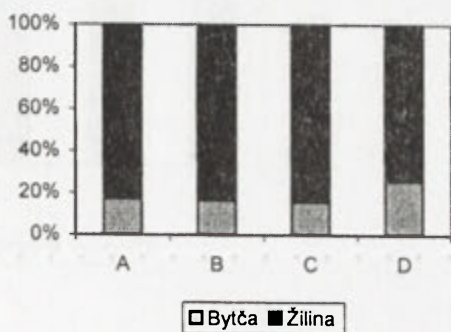
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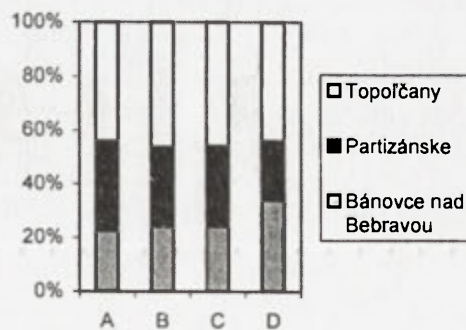
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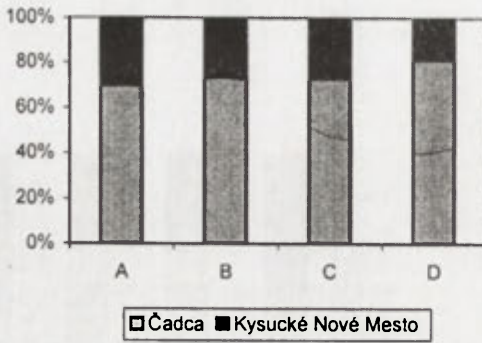
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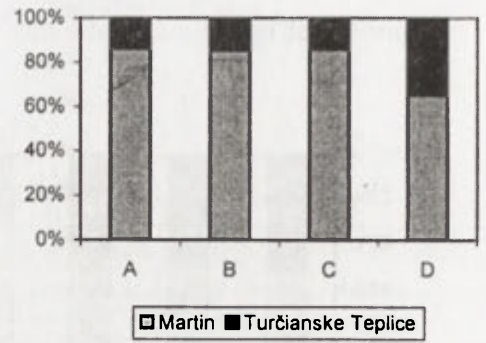
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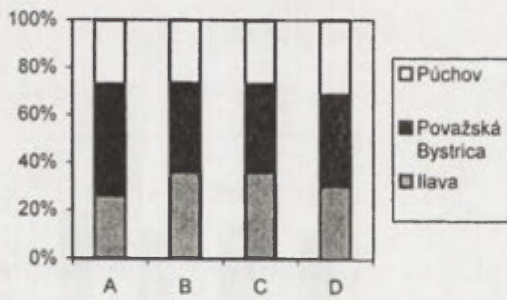
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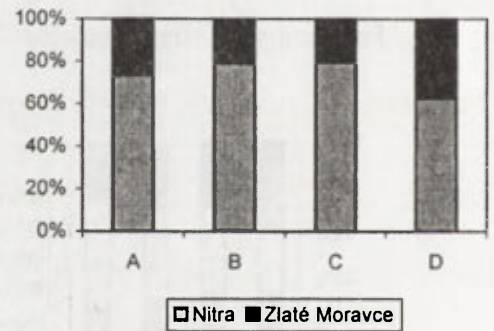
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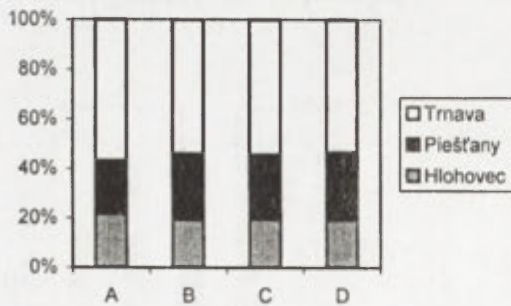
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Former district Nitra



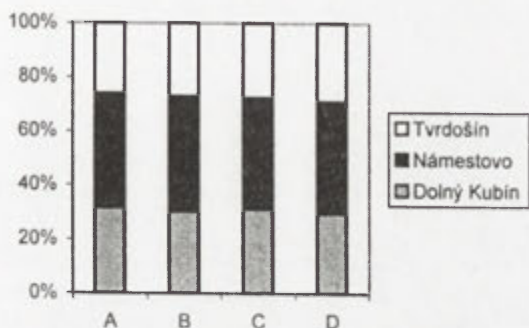
Former district Trnava



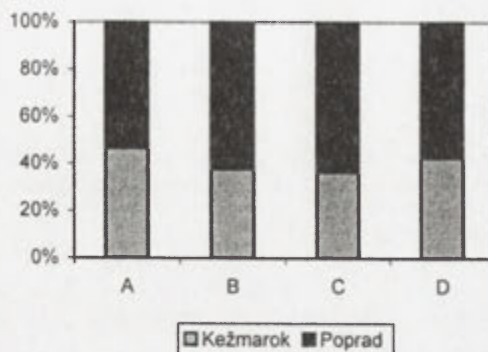
Former district Prešov



Former district Dolný Kubín



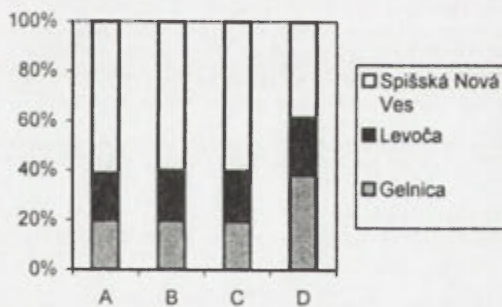
Former district Poprad



Former district Žiar nad Hronom



Former district Spišská Nová Ves



A = average number of unemployed,
1997-2001

B = number of population, 2001

C = number of economically active
population, 2001

D = area, 2001

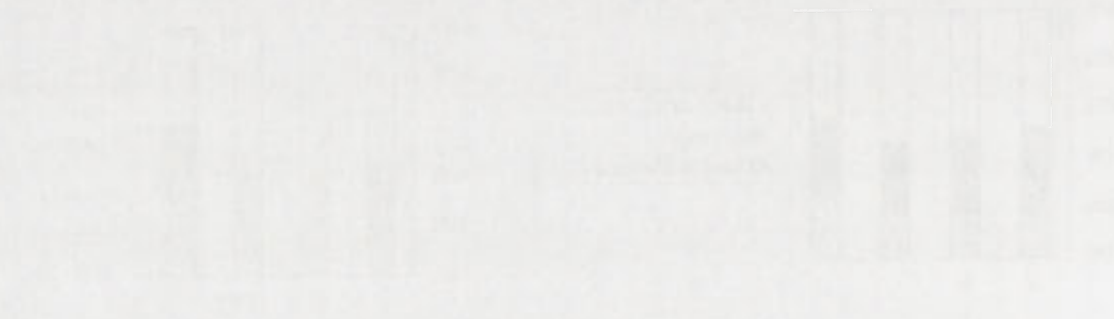
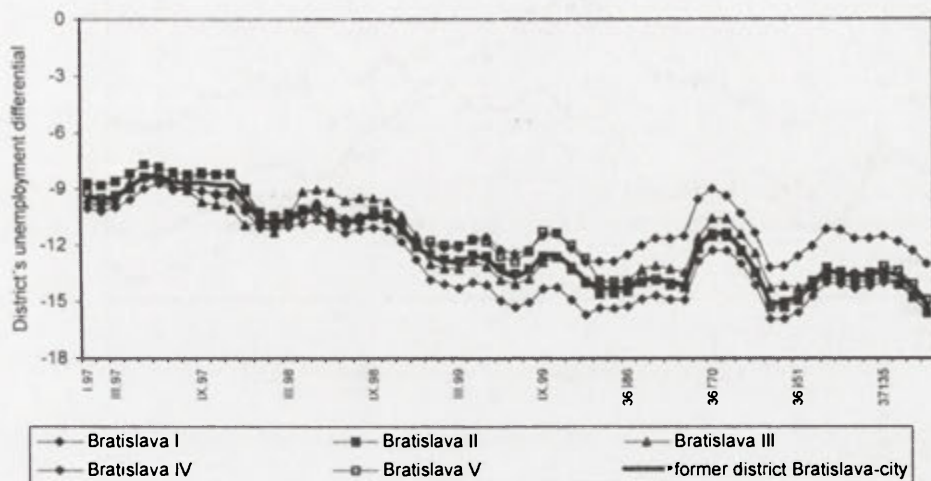
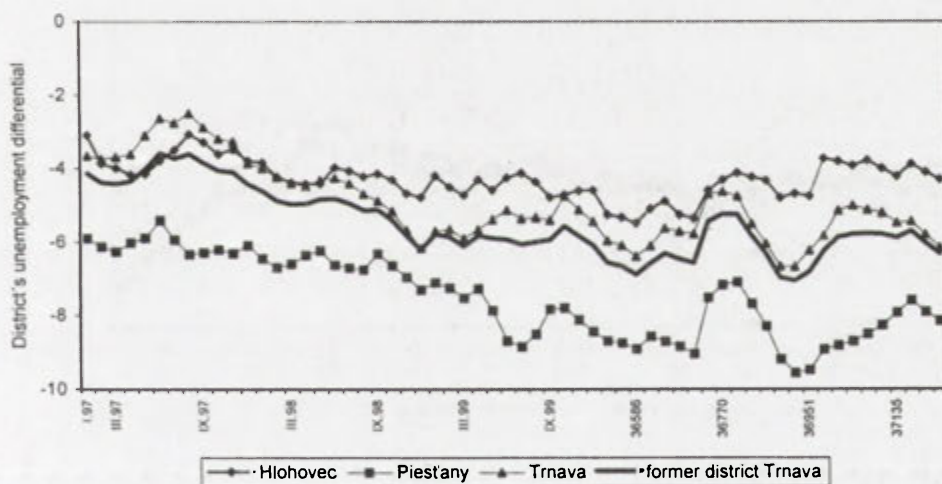


Fig. 2. The influence of spatial disaggregation on genesis of spatial disparities.
 Comparative dynamics of the current and former district unemployment rates.
 District unemployment differentials, 1997-2001. District rate - national rate ($u_{\text{district}} - u_{\text{Slovakia}}$)

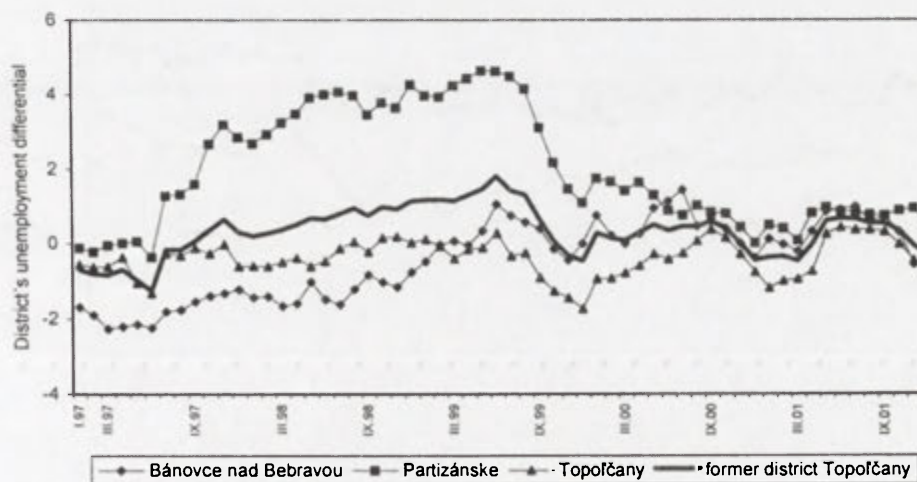
Former district Bratislava-city



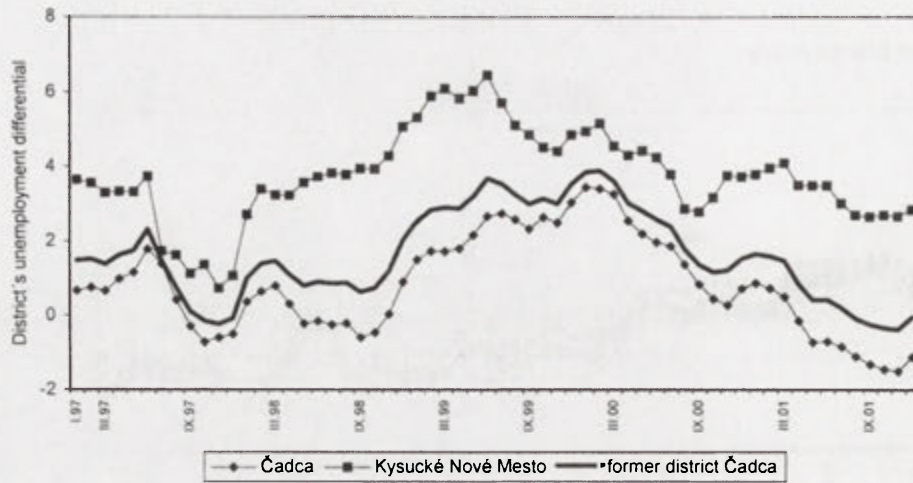
Former district Trnava



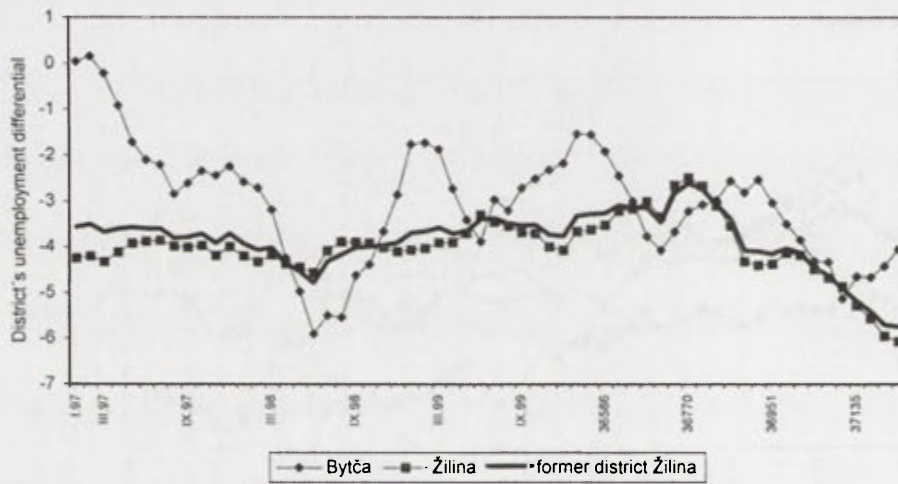
Former district Topoľčany



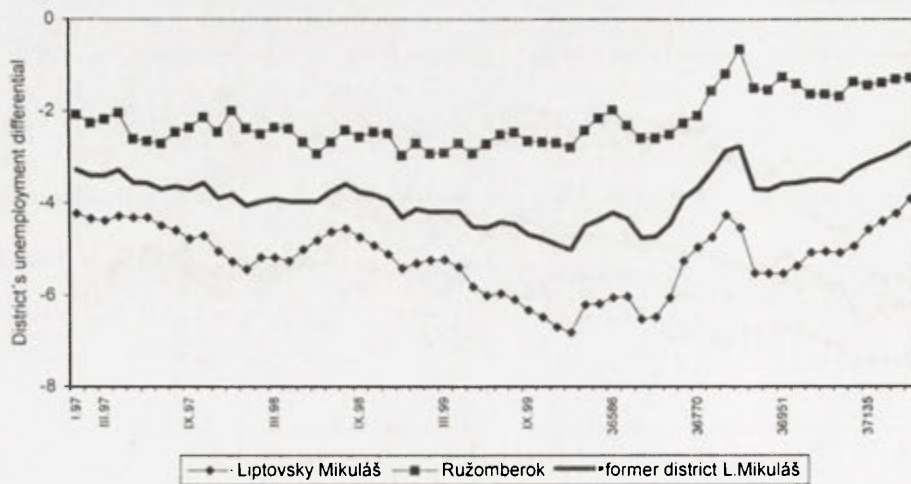
Former district Čadca



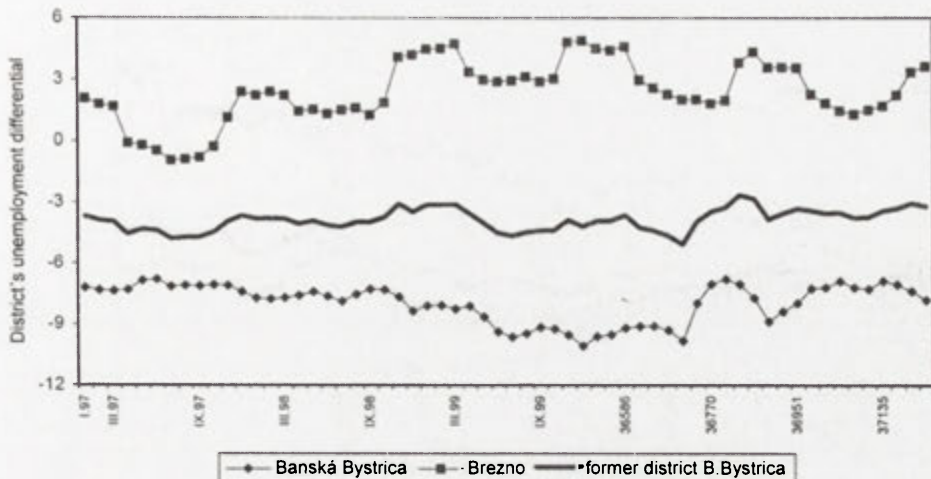
Former district Žilina



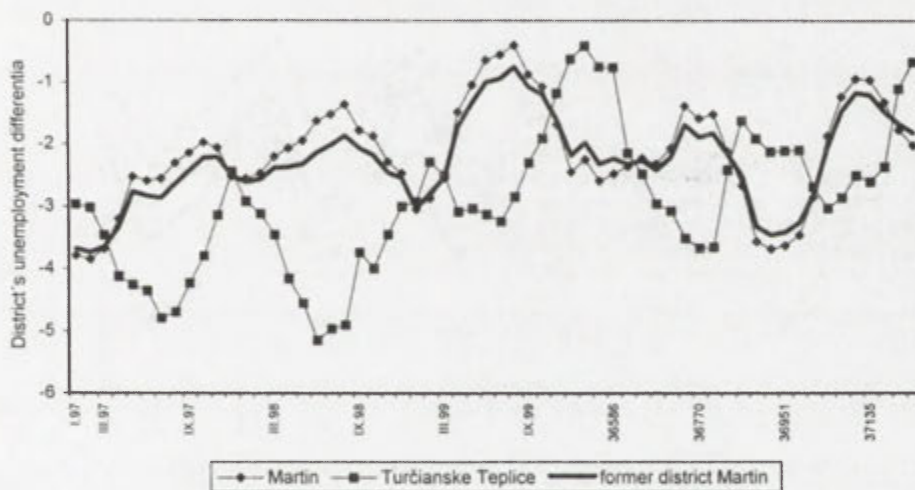
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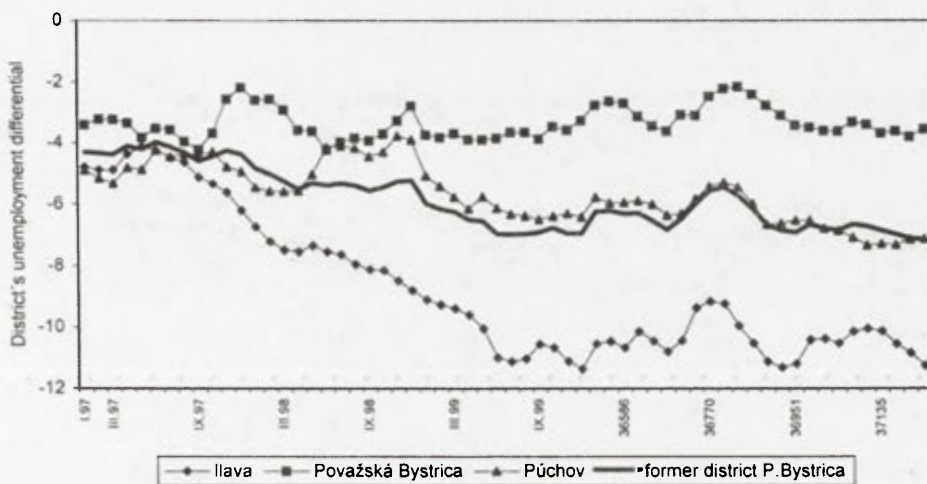
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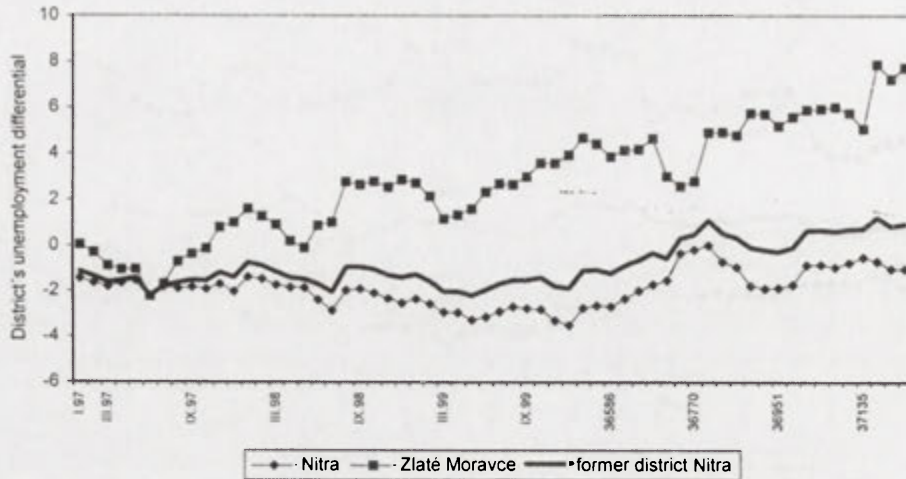
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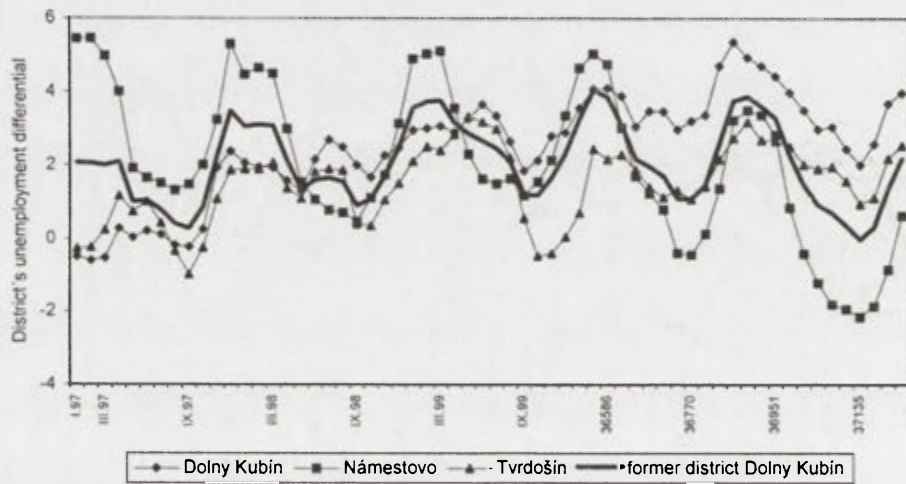
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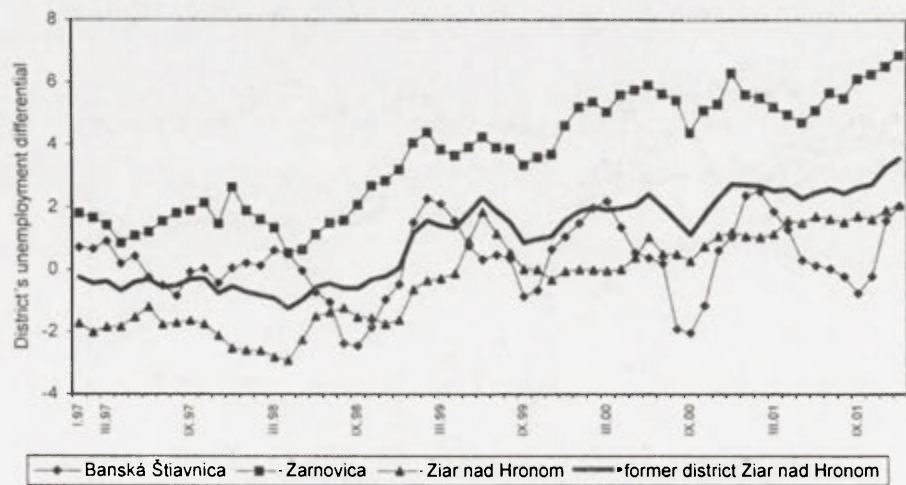
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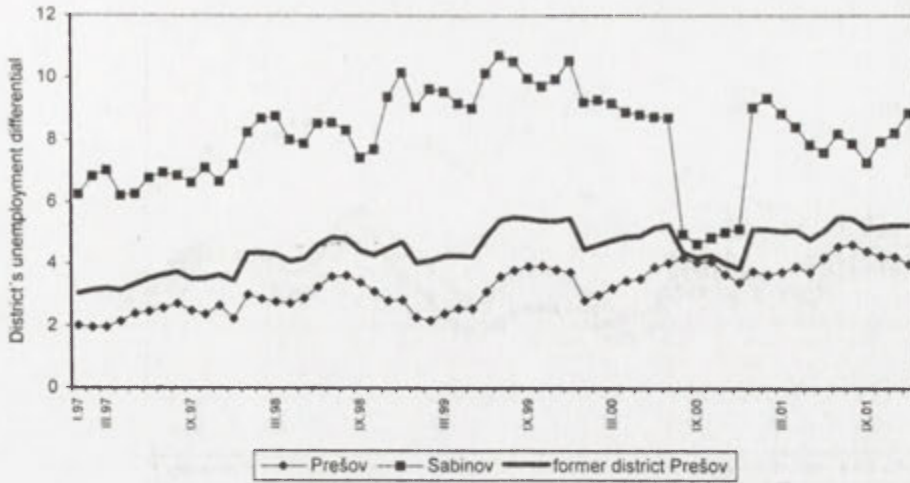
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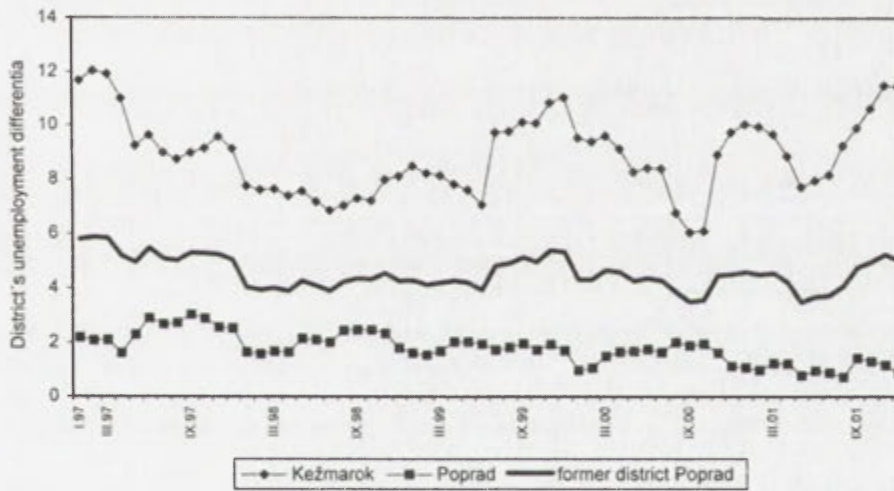
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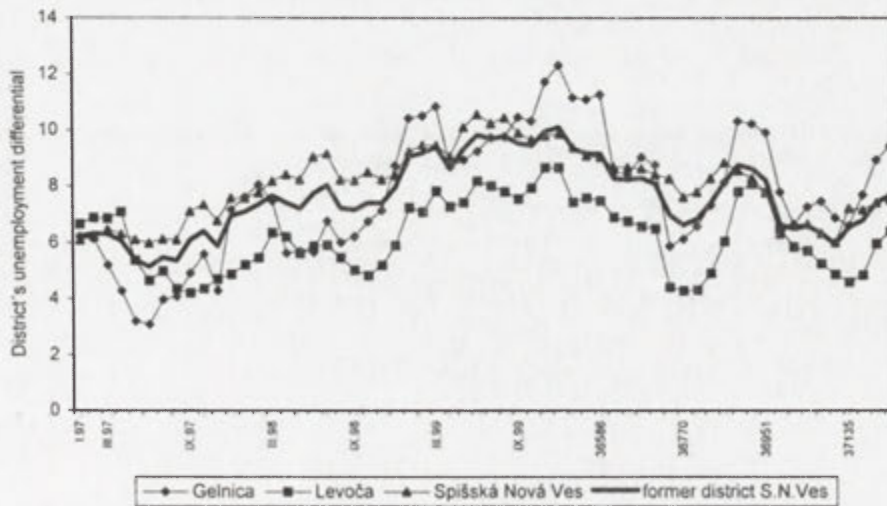
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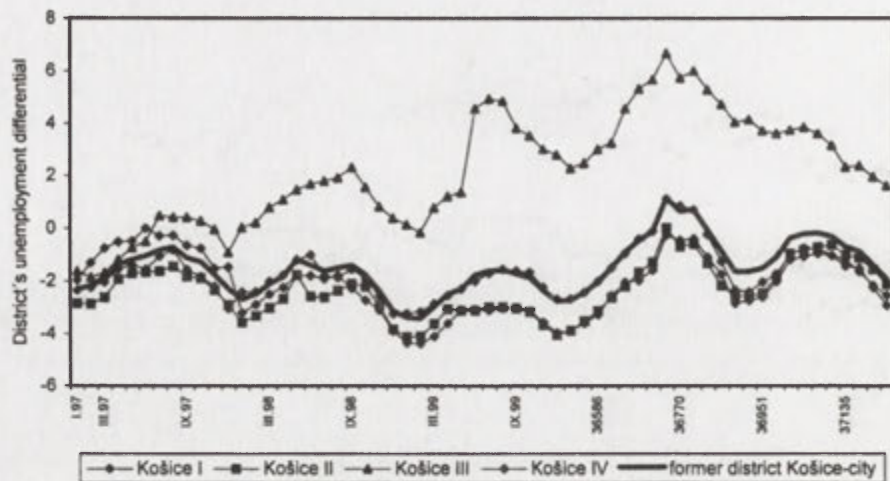
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Former district Spišská Nová Ves



Former district Košice-city



The denominational structure of the Hungarians inhabiting Slovakia

Dariusz Świątek

An essential role was played in the public life in the history of the territories nowadays belonging to Slovakia by the personalities or organisations associated with the religious movements. The beginnings of such an influence can be recognised already in the case of the missionaries living and working in the 9th century, in particular, on the area of the present-day Slovakia – Cyril and Methodius, whose activity influenced in a significant manner European culture. The subsequent influences were effected by the diverse reformist movements, which have been bringing impact from the West upon these areas, started in the 14th century by the Czech Hussitism. Finally, one should also mention the spectacular events of the recent history of Slovakia – the leadership of the state by monsignor Tiso during the World War II, or the repression applied by the authorities of the communist Czechoslovakia with respect to the Church organisations. Thus, we can see that the denominational organisations were always present in the history of the Slovak territories.

The present report pays most of attention to the problems of religious denominations with regard to the population of Hungarian origin, living in Slovakia. The numbers of people in the largest of the denominational groups, the organisational division of the corresponding ecclesiastical institutions and the most important problems facing them nowadays have been presented.

The previously mentioned influence of the religious organisations on social life concerned also the Hungarians, who constitute the second largest ethnic group in the Republic of Slovakia. According to the census of 2001 there are 520,000 persons of Hungarian origin, (i.e. – 9.7% of total population of the country). Similarly as in the case of other inhabitants of Slovakia, the majority of the Hungarians declare themselves as believers, with the largest proportion among them identifying themselves with the Roman Catholic Church. The second largest denominational group is constituted by the faithful of the Evangelical-Reformed Church (the Calvinists). These two groups account for the majority of the Hungarian population, with the remaining ones either declaring some other denomination, or not admitting membership in any denominational organisation.

Until 1989 the functioning of the churches and the religious associations in Slovakia, forming a part of Czechoslovakia, was limited and hampered by the communist authorities, who aimed at the marginalisation of the significance of this type of organisations in social life. It was especially in the case of the Hungarian minority that the undertakings were implemented meant to make difficult or altogether impossible the functioning of the church structure, as well as work was hampered of the individual priests ministering for this population group (confiscates, arrests). The reason was – besides the generally introduced atheisation of the society – the wish of limiting the role played by the religious institutions in the preservation of the Hungarian culture and language. This applied both to the Roman Catholic and the Evangelical-Reformed churches, as two most important ones, in which the Hungarian language was used, and to the other, smaller religious associations and denominations.

The changes, which took place after the collapse of the communist regime, opened up the room for the possibilities, within which the churches and the religious associations could function without limitations. This formal renewal has not brought, though, the significant increase of the numbers of the faithful of the particular denominations, but to the contrary - a decrease of these numbers has been observed. The biggest decrease of the number of the faithful among the Hungarians inhabiting Slovakia in 1991 was noted for the Roman Catholic Church. In 1950 they constituted roughly 75% of the Slovak Hungarian population, while in 1991 – only 64.8%. Yet, the faithful of the Roman Catholic Church constitute still the largest Hungarian denominational group. The second group in terms of the number of the faithful is the Evangelical-Reformed Church, with 61,000 persons (around 12%). The other ones either declare membership in some other churches (including the Greek-Catholic, i.e. Uniate Church, and the Evangelical-Lutheran Church – 2% of the total number of Hungarians in Slovakia each), or do not declare any religious affiliation. The distribution of the population of the Hungarians in Slovakia according to the denominational structure is shown in the table.

Table 1. The denominational structure of the Hungarian population living in Slovakia in 1991 and 2001

	Roman-Catholic	Greek-Catholic	Reformed Christian	Evangelical	Others *
1991	368 tys.	8 tys.	64,5 tys.	12,5 tys.	114,2 tys.
2001	330 tys.	7 tys.	60 tys.	10 tys.	113,5 tys.

* including persons not declaring association with any denominational group.

Sources: Own calculations of the author on the basis of the census data of 2001 contained in: M. Olexa, *Scitanie obyvateľov, domov a bytov na Slovensku*. Demografie, 2002, vol. 44, no 1; Rene Matlovic, *Geografia Religii*, Presov 2001; *Population and Housing Census 2001*, Basic Data, Statistical Office of the Slovak Republic, Bratislava, October 2001; as well as own registers of the churches.

Thus, the largest denominational group among the Hungarian minority is constituted by the Roman Catholics. They do not have their own, independent ecclesiastical structure. The Hungarians belong to four Slovak dioceses: the Arch-Diocese of Bratislava-Trnava, which includes 123 Hungarian parishes, though only 81 of them actually function; the Diocese of Nitra, where only four Hungarian priests work on the area of 12 parishes; the Diocese of Rožňava, in which 15 Hungarian priests work, each of them having on the average two parishes to take care of; a similar situation exists in the Arch-Diocese of Košice, in which 17 Hungarian priests are responsible for more than 35 parishes. The overall number of the Catholic priests of Hungarian origin in Slovakia is 117. They minister in more than 200 parishes, belonging to the Hungarian community (E. Bakker 1997, p. 82).

The Catholic community of Hungarians in Slovakia demanded at the end of the 1990s the establishment of a separate diocese, but these demands encountered a sharp opposition from the authorities of the Slovak Catholic Church. Ultimately, a separate bishop was nominated, with the duty of taking care of the faithful, for whom liturgy is held in the Hungarian language, yet without territorial or any other separation of a diocese.

The percentage shares of the priests speaking Hungarian in relation to the total numbers of priests working in particular dioceses (in 1995) was as follows (D. Stevčková 1997, p. 27):

- Arch-Diocese Bratislava-Trnava 13.1%
- Diocese Nitra 2.2%
- Diocese Rožňava 12.8%
- Arch-Diocese Kosice 7.1%

The main problem of the Hungarian Roman Catholic Church in Slovakia is nowadays the shortage of clergy. It is only since a short time ago that a bishop of Hungarian extraction functions in its structure. More than half of the Hungarian priests are of more than 50 years of age. At the

same time only 2-3 persons of Hungarian nationality (and therefore speaking fluently Hungarian) graduate each year from the Higher Ecclesiastical Seminar in Bratislava (E. Bekker 1997, p. 82). If this state of things persists over the next ten years, it can be expected that the number of the clergy capable of ministering in the Hungarian language will decrease by half in Slovakia.

The downfall of the communist regime in Slovakia made it possible for the Hungarian Catholics to establish their own institutions and associations. There are nowadays two secondary schools in Slovakia with Hungarian as the teaching language, and a couple of primary schools, functioning also in this language. In 1993 the association "Pax Romana" was established, grouping the Hungarian catholic intellectuals. The Hungarian Religious Schooling Centre and the Social Movement of Young Christians were established in the locality of Tomesov, close to Bratislava. The activity of these organisations is focused on the revival of the religious life of the Hungarian community in Slovakia. Since 1991 the weekly "Reměny" (Hope), as well as the annual calendar "Katolikus Magyar Vasárvnap" (Catholic Hungarian Sunday), dealing with the problems of Hungarian Catholics in Slovakia, are being published. In 1994 the "Good Shepherd" Foundation was established aiming at the improvement of the situation in terms of spiritual care (D. Świątek 2001, p. 102). This makes room for some hope that the forecasted decrease of the number of Hungarian priests working in Slovakia would in fact not occur.

The subsequent religious group among the Hungarians living in Slovakia is constituted by the members of the Evangelical-Reformed Church. They account for 11.5% of the Slovak Hungarians, i.e. some 60,000 persons. On the other hand, among all the faithful of this denomination in Slovakia, Hungarians account for 78% (K. Kocsis 1997, p. 16). That is why, therefore, the entire organisational structure of this denomination is located in the southern part of Slovakia, largely overlapping with the areas inhabited by Hungarians.

There are altogether 380 congregations of this church in Slovakia, distributed among nine dioceses (Bratislava, Komarno, Tekov, Gemer, Eastern Košice, Western Košice, Uzhorod, Michalovce, Ondavsko-Hornadska). Only two congregations are Slovak-speaking, in the remaining ones the liturgy is held in Hungarian. The primary issue for the Hungarian Calvinists, living in Slovakia – similarly as for the Roman Catholics – is the shortage of the clergy. Among the 341 congregations only 176 are serviced by the priests, of whom there are merely 148 in the entire Slovakia. They are assisted by 61 catechists. The administrative centre of the Evangelical-Reformed Church is in Komarno, where the Presidium of the Synod is located. The seat of the bishop, on the other hand, is in the locality of Mordany (R. Matlovic 2001, p. 333).

In 1994 the John Calvin Theological Academy was established in Komarno, educating in the Hungarian language the future pastors. Until that time the necessary education could only be acquired outside of Slovakia. There are two catechist seminars functioning on the territory inhabited by the Hungarians – in Komarno and in Košice, where the teachers of religion are also taught in the Hungarian language. Besides, in Dolny Stale and Roznava the Reformist primary schools are functioning, and the priests are employed in the Protestant gymnasium (semi-secondary school) in Košice. The Evangelical-Reformed Church is conducting a very broad social activity through various kinds of institutions and associations (E. Bakker 1997, p. 82).

The general problem of the Hungarian parishes in Slovakia is the uncertain legal situation of the church property confiscated by the authorities of Czechoslovakia in 1945. This concerns primarily the Evangelical-Reformed Church, whose leadership do not dispose of the appropriate documentation, confirming the ownership of the seized assets, which makes the conduct of the procedures leading to the return of the property extremely difficult. In September 1993 the National Council of Slovakia promulgated the law on the principles of compensation for the church property. Despite this, until today, more than 70% of the assets having belonged to the Calvinist church remains in the hands of the state. This is additionally due to the fact that the major part of this property is nowadays a component of the Slovak educational system (more than 60 school buildings), and the law mentioned excludes this type of buildings from the legal scope of potential restitution.

Religion is a significant factor of preservation of national identity of the minority

groups. In case of Slovak Hungarians there is yet another element allowing for the preservation of ethnic identity, namely the Hungarian language used in religious ceremonies (R. Dzwonkowski 1993, p. 192). The percentage shares of the parishes, in which Hungarian is used during the liturgy, are as follows (own calculations of the author on the basis of R. Matlovic 2001, and *Population...* 2001):

- Arch-Diocese Bratislava-Trnava	61.4%
- Diocese Nitra	21.4%
- Diocese Rožnava	40.6%
- Arch-Diocese Košice	35.0%
- Eastern Region of the Evangelical-Lutheran Church	54.5%
- Western Region of the Evangelical-Lutheran Church	18.1%
- Greek-Orthodox Church	42.6%
- Evangelical-Reformed (Calvinist) Church	75.5%

As it can be easily seen on the example of the dioceses of the Roman Catholic Church, Hungarian is used as the language of liturgy most often in the dioceses of the southern part of Slovakia, and in particular – in the diocese of Bratislava-Trnava, where the largest Hungarian community lives. In the case of the Evangelical-Reformed Church its entire structure is based upon the area, on which the Hungarians constitute a significant part of the population.

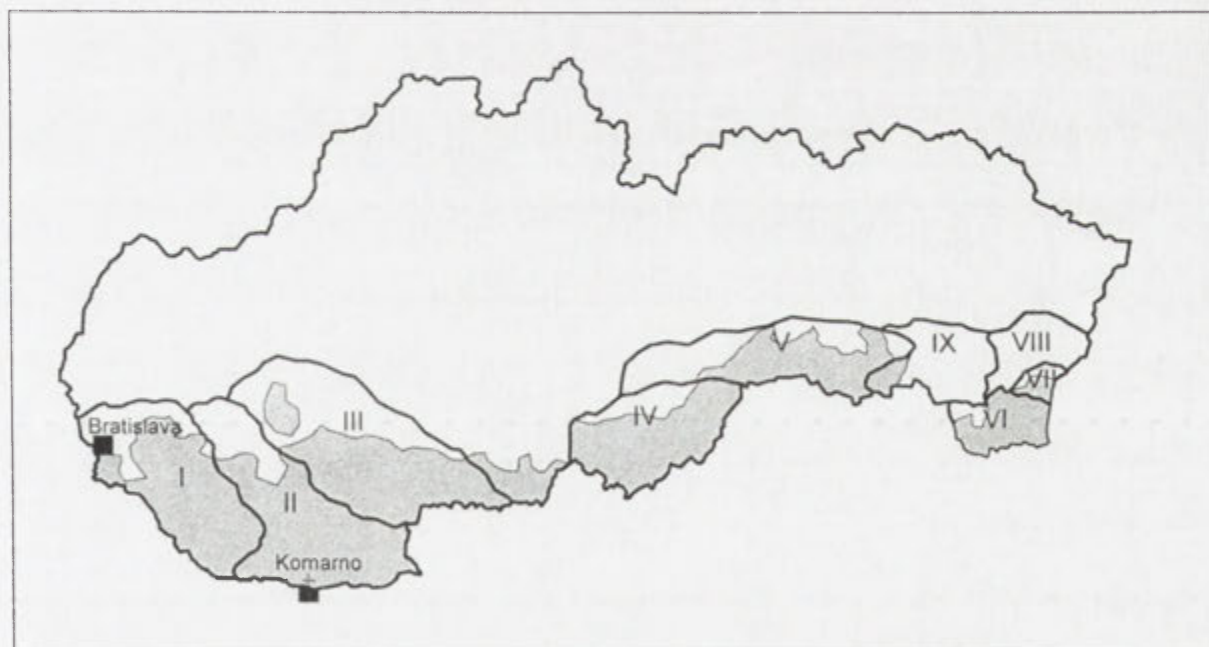
The parishes, in which liturgy is held in Hungarian, constitute a significant part of the structure of the churches in Slovakia. Notwithstanding the fact that they struggle with the problem of the shortage of the clergy, the service they render the Hungarian communities living in Slovakia can hardly be overestimated. The services held in Hungarian language contribute to the maintenance of knowledge and to transmission of the language. Yet, given the decreasing number of the Hungarian speaking clergy in Slovakia the threat of secularisation of the Hungarians inhabiting this country becomes quite realistic, potentially entailing the demise of such an important factor supporting Hungarian culture as religion. This problem concerns mainly the young generation, particularly susceptible to the influence exerted by the proximity of Hungary, and especially of Budapest, and the impact of the life style, prevailing there, which does not involve any kind of engagement in whatever form of religious activity.

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Map 1: The dioceses of the Roman Catholic Church against the background of the areas inhabited by the Hungarian minority in Slovakia



Dioceses: I – Bratislava, II – Komárno, III – Tekov, IV – Gemer, V – Western Košice, VI – Eastern Košice, VII – Užhorod, VIII – Michalovce, IX – Ondavsko-Hornádska
Komárno – synod seat

Map 2: The dioceses of the Evangelical-Reformed Church against the background of the areas inhabited by the Hungarian minority in Slovakia

Source: Map 1 and 2: R. Matlovic, *Geografia Religii*, Presov 2001; the areas inhabited by the Hungarians – on the basis of *Population and Housing Census 2001*, Basic Data, Statistical Office of the Slovak Republic, Bratislava, October 2001.

Part II.

Changes of urban functions

Part II

Changes of urban functions

Selected problems of sustainable development in Polish towns

Bożena Degórska

1. Introduction

Urban environment is constituted by the closely interrelated system of dependencies between human beings, taken along with the products of the human socio-economic and spatial activity, and the natural environment. According to W. Peński (1999) the fundamental element, conditioning the stability of such a system, is constituted by nature, and the system is in equilibrium when people have the feeling of well-being, while it is unstable, when the given society feels a discomfort, and the health of the inhabitants is disproving. The natural environment plays, therefore, a very important role in the sustainable development of towns, and influences the quality of life of the inhabitants.

The recognition that the natural system of open spaces is a stabilising element of the spatial structure should constitute the basis for the sustainable development in towns and in the surrounding areas. The importance of this issue was indicated both in the world literature (Castells 1983; Munton 1983; Elson 1985; Van Gessel 1990; Elson et al. 1993; Jędraszko 1998; Hadding, Needham, Wisserhof 2000; Tjallingii 2000; Ravetz 2001) and in Poland (Smogorzewski 1974; Gacka-Grzesikiewicz Różycka 1975; Stala, Degórska 1983; Stala, Kluge, Degórska 1985; Zimowski 1999; Sieracka-Nowakowska 2001; Degórska 2002).

Numerous negative spatial processes, entailing the worsening of environmental quality, are observed in towns and in their suburban zones, and especially in the centres of regional and supra-regional significance. These processes are mainly directed at the use of the green open spaces for construction developments. Such areas, except for those encompassed by the legal forms of nature protection or formally considered to be the urban greenery, are usually treated as the reserve of land for future investment projects.

The inadequate composition of space is subject to the process of petrification. The potential changes in the framework of the spatial structures arising from definite investment making, consisting in the restitution of the natural functions, are, therefore, very difficult to carry out, due, in particular, to the high costs of such operations. Thus, it is necessary to introduce the rationalisation and optimisation of the spatial and functional structures already at the stage of planning.

The degradation of the urban environment is facilitated by the negligence in spatial policy, and especially by the lack of consistency in the spatial planning between the national, regional, and local levels, the shortcomings in the domain of effective instruments of spatial planning, the perception of the majority of green open spaces as the land reserve for construction, and the general indisposition towards the elaboration of the spatial development plans for the entire communes or functional areas. The latter are particularly important for the protection of the natural environment, since natural systems do not observe the administrative boundaries. The preservation of the natural linkages inside the towns, as well as securing of the continuity of the natural system over the surrounding areas, requires preparation of the planning documents for the areas bigger than the town itself.

The currently taking place development of towns and suburban zones can be referred to as "unsustainable". This fact is reflected, in particular, through:

- the decrease of the surface of natural areas of open spaces and the interruption of the continuity of the ecological corridors, along with the decrease of their ecological performance level, as well as of their leisure and climatic value,
- the functional and spatial chaos and the frequent lack of aesthetic considerations in the harmonious composition of landscape,

- the shortcomings in the domain of equipment with the sewage system and wastewater purification plants, lack of the comprehensive system of solid waste management in conditions of constant increase of the volume of the municipal and industrial liquid and solid waste,
- the shortcomings in the domain of road infrastructure, and mainly the lack of thruways and the circumventing roads, given the enormous increase of the number of cars, and the pollution produced by them, as well as low interest with respect to the introduction of the alternative transport means,
- the possibility of occurrence of the extraordinary threats originating primarily from the side of transport, energy sector, and floods,
- the lack of responsibility in management of the open spaces, and especially in the speculative development of such areas.

The analysis, reported in the present paper, refers to a couple of problems, concerning the ecological characterisation of towns, such as: changes in the areas of urban greenery, liquid and solid waste management, and changes in the quality of drinking water. The attempt was made of indicating the towns, which constitute the biggest threat for the environment with respect to the volume of waste produced.

2. Changes of the area of the urban green spaces

Green areas fulfil an important function in the shaping of urban space. These areas influence the physical and psychological health status of the inhabitants, because they are the places of physical leisure and psychological regeneration. They also have a climate-forming and sanitary function, as the areas of regeneration and exchange of the air, and as the belts controlling the flow of the air masses. Greenery enhances the aesthetic value of the urban space as a landscape-forming element. These areas are, as well, frequently the locations of agricultural production. The existence of the natural system of open spaces has a peculiar significance for the improvement of efficiency of natural systems within the town and for the protection of biological diversity. E. P. Odum (1982) is of the opinion that the preservation of the adequate relations between

the overbuilt and open spaces requires that the latter occupy 1/3 of the urban surface area.

Hence, it is important for the spatial planning of towns and suburban zones to perceive the natural system of the open spaces as a structure-forming element. Despite the important functions fulfilled by the natural open spaces within the urban space, it is exactly these areas that are threatened the most with degradation. Urban development takes place mainly at their expense.

When analysing the changes in the surface area of the all-accessible and housing estate greenery in Poland at the end of the 20th century we can state that there were only two years (1996 and 1998), which were characterised by the increase of the surface area of this land use category (Fig. 1). After 1998 a significant declining tendency has been observed. In the years 1999-2000 the area of generally accessible and estate greenery per capita of the inhabitants of towns decreased by as much as 25%. Special apprehension is caused by the significant decrease of the total area of the housing estate greenery from 36,700 hectares in 1998 to 23,700 hectares in 2000. During the last two years of the 20th century only the total area of urban parks and municipal forests did not shrink (Fig. 2). Notwithstanding this, the existence of numerous enclaves of greenery is threatened in many towns, particularly in downtown areas, and particularly with respect to the estate greenery. In some cases construction developments enter the areas, which constituted the reserve for the future housing estate parks or sports grounds.

The changes in the spatial organisation in towns and their surroundings, taking place in the recent years, give the reasons for expecting that the rate of shrinking of the natural open spaces will accelerate. The change of the housing preferences of the population, expressed through the wish of residing close to the green areas or within them causes that not only the continuity of the natural systems in towns is under threat, but also their connection with the open spaces of the suburban zone, as well as their spatial continuation on the surrounding areas. Given the insufficiency of the instruments of urban landscape planning and the neglect of the need of accounting for the natural system of open spaces as the structure-forming element and the ecological compensation, one of the causes of lowered quality of life on urban areas will be constituted by the petrification of the badly conceived functional and spatial structures.

3. Problems related to the liquid and solid waste management

Formation of the sustainable development space of Polish towns requires also an adequate regulation with respect to the issues concerning sewage treatment and solid waste economy.

Despite the fact that the share of the non-purified sewage from urban areas constitutes rather low share of their total volume (Fig. 3), if we consider this share together with the one of the sewage treated only mechanically, it jumps up to 37.4%. The situation is at its worst with respect to the proper municipal liquid waste. Although 79% of towns are equipped with sewage system purification plants, only 30.7% of them have the purification plants with enhanced removal of biogens (Ochrona Środowiska 2001). While the degree of purification of industrial liquid waste can be considered sufficiently good, significant investment needs exist in the domain of municipal waste. The environmental hazard is even amplified by the fact that a part of towns producing the largest volumes of industrial and municipal liquid waste (Fig.4), are also characterised by shortcomings in the domain of purification (Fig. 5).

In the context of the group of towns featuring the highest environmental hazard level associated with the non-purified liquid waste, the situation in Warsaw, where the problem of wastewater treatment plant has until now not been resolved, is especially acute.

If we analyse the problems of municipal wastewater treatment with respect to the magnitude classes of towns, we can conclude that the best situation exists in the towns with 20,000 to 50,000 inhabitants, in which the population serviced by the purification plants accounts for 86% of the total population number, while the worst situation is in towns with less than 2,000 inhabitants, in which this share falls to 56% (Ochrona Środowiska 2001).

A definite weakness in this domain is also constituted by the shortcomings in the terms of modern technologies of waste purification, since only 1/5 of total volume of the industrial and municipal liquid waste is treated by plants with enhanced removal of biogens. On the other hand, there is a positive aspect consisting in the significant increase of the number of such plants and the gradual abandonment of the mechanical treatment of liquid waste (Table 1).

Table 1. The changes of the number of the wastewater treatment plants servicing urban areas and the population in urban areas serviced by sewage treatment plants in the years 1995-2000.

	1995	1999	2000
Number of sewage treatment plants servicing urban areas:	793	943	965
in which:			
mechanical:	152	67	53
with increased biogene removal	47	205	256
Population in urban areas served by sewage treatment plants	65,1%	78,0%	79,3%

Source: *Ochrona Środowiska 2001 (Environmental protection 2001). Informacje i opracowania statystyczne*. GUS, Warszawa.

The issues of the unsustainable water economy in towns are also associated with the excessively high consumption of the high quality underground water by industry, compared to the much lower quality of water consumed by the population. It can be estimated, on the basis of the sanitary assessment of water used by the population, that the worst quality characterises water taken from the homestead and public wells,

while the best – water from the public water supply systems (Table 2). Thus, in connection with the not always adequate quality of water for people, it is important both to improve the quality of the surface and underground waters, and to improve the treatment processes. The positive direction of changes is indicated by the improvement of quality of drinking water, observed during the last years.

Table 2. The sanitary assessment of water used by the population in towns in 2000

	Sanitary assessment of water used by the population, in %					
	waterworks			wells		
	good	unsure	bad	good	unsure	bad
Public	92,8	5,4	1,8	29,3	35,6	35,1
Plant	86,2	8,7	5,1	57,9	18,4	23,7
Local	80,3	8,6	11,1			
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Household				47,3	5,4	47,3

Source: *Rocznik Statystyczny (Statistical Yearbook)*, 2001: GUS, Warszawa.

Another essential problem, which constitutes a challenge for the municipal management is related to solid waste economy. In view of the lack of universally applied waste segregation, re-use and incineration, as much as 94% of municipal waste is dumped (Fig. 6). Situation is much better in the domain of industrial waste economy (Fig. 7). Yet, let us add that the problem of waste economy has not been until now appropriately regulated in many countries of the European Union (Degórska 2000).

Similarly as in the case of liquid waste, the town featuring the highest environmental hazard resulting from municipal solid waste is Warsaw, while for the industrial waste it is the town of Polkowice. The rankings of towns in these terms are presented in Figs. 8 and 9.

4. Summary

The transformations, taking place within the urban areas and the suburban zones, observed in the recent years, are expressed both through degradation of the value of natural environment, and through improvement of quality of selected components of this environment. The processes observed provide, on the one hand, the opportunities for the formation of the sustainable development space, but, on the other hand, lead to emergence of space characterised by functional and spatial chaos, and first of all – by the frequent lack of well-designed natural system of open spaces. The contemporary spatial development of towns is usually taking place at the cost of decrease of the area of green open spaces, and that is why one of the elements conditioning the establishment of the sustainable development space in towns is to treat the natural system of open spaces as an essential structure-forming component.

The positive aspect of the transformations observed is constituted by the improvement of the situation in the domain of sewage system in towns and the wastewater treatment plants with advanced technological capacities. It should be expected that problems related to liquid waste management ought to be resolved until the year 2015, because this exactly is the horizon of the period of adjustment to the requirements of the European Union.

Contrary to the liquid waste management, the situation in the domain of solid waste economy is changing too slowly. The comprehensive system of solid waste management, especially with respect to municipal waste, which is almost entirely dumped, is still lacking. Besides, the existing dumps, frequently devoid of appropriate technical security installations, constitute the locations of enormous environmental hazard. Conform to the directives of the European Union this state of things must get significantly improved until the year 2007, with the possibility of prolonging this period until 2012 for the selected groups of waste.

A threat to nature and quality of urban life is constituted also by the process of construction developments on the green open spaces. This process is, on the one hand, a must for the urban development, but on the other – it often takes place without due respect for the laws of nature and for the human need of contact with nature close to the place of residence, or for the right to clean air. New construction projects are frequently located within the aerating belts, the areas of legal protection of nature, and the natural strips ensuring the ecological continuity of the natural system both within the urban space, and with the areas of the suburban zone. It occurs increasingly often – mainly in large towns – that the public green areas, as well as the surfaces, initially meant to constitute the reserve of land for the housing estate greenery

or for the sports grounds, are used for construction purposes. Although this process progresses slowly on the scale of the country, yet, without ecological compensation, it may bring further worsening of the quality of life, especially in large urban centres.

The analysis presented concerns only selected elements, influencing the formation of the sustainable development space of Polish towns. The problem, however, is much broader, and it encompasses the entire social sphere (the so-called social order), the economic sphere (the so-called economic order), and the environment (the so-called ecological order).

The problems of formation of the sustainable urban development space do not concern only the urban area within administrative boundaries of towns, but also the entire suburban zone in view of the dynamic process of spatial urbanisation of the areas surrounding towns, and first of all the centres of regional and supra-regional significance. This process, even if unavoidable, proceeds, however, in a chaotic manner, usually in disagreement with the prerequisites of protection of

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- the natural values, preservation of the landscape assets, securing of leisure close to the places of residence, and frequently also – the functional transport solutions, or the accessibility to the sewage systems and the wastewater treatment plants.
- The emerging spatial structures, through petrification of the respective patterns, will determine the course of development for a long time yet. The lack of recognition for the obligatory character of the requirement of establishment of the natural system of open spaces as the structure-forming element and the ecological compensation, will be one of the causes of worsening of the quality of life within the urban areas and in the surroundings of towns. The contemporary spatial processes, given the lack of substantially founded and effective instruments of spatial planning, will certainly not lead towards the formation of the sustainable development space, especially in large towns and in their surroundings.
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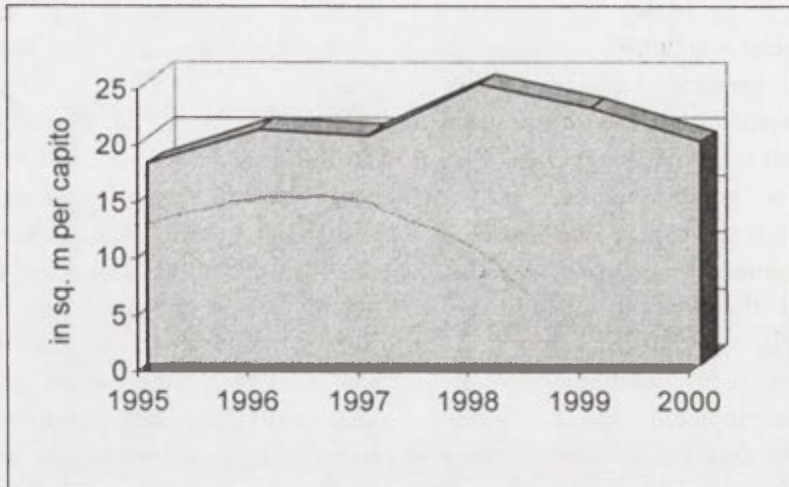


Fig. 1. The changes in the area of the public and the housing estate greenery in towns, in the years 1995-2000

Source of data: *Ochrona Środowiska 2001 (Environmental protection 2001). Informacje i opracowania statystyczne. GUS, Warszawa.*

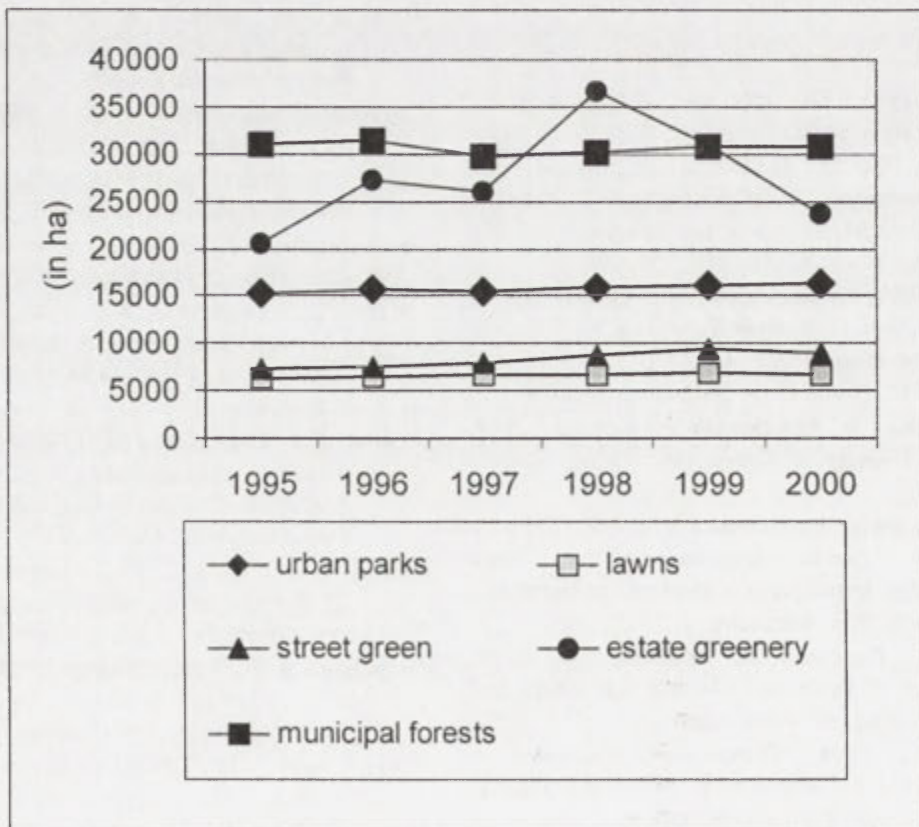


Fig. 2. The changes in the surface area of urban greenery in the years 1995-2000

Source of data: *Ochrona Środowiska 2001 (Environmental protection 2001). Informacje i opracowania statystyczne. GUS, Warszawa.*

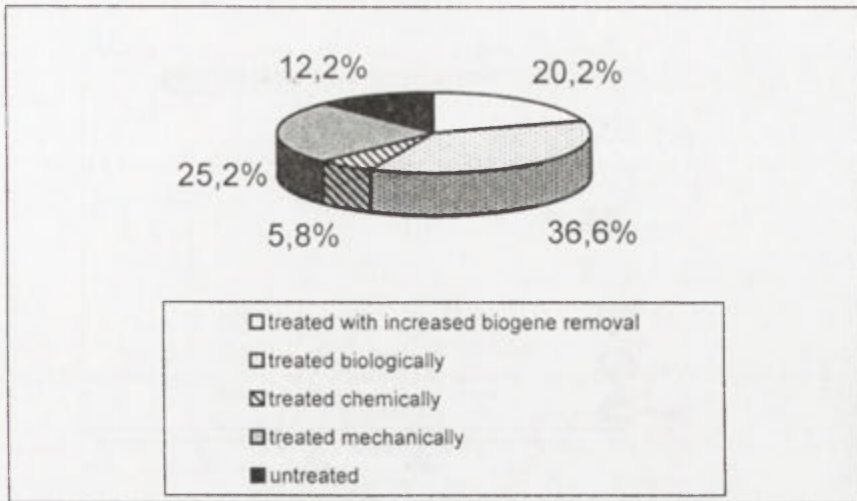


Fig. 3. The structure of the sewage treatment in towns, in 2000
 Source of data: *Ochrona Środowiska 2001 (Environmental protection 2001).
 Informacje i opracowania statystyczne. GUS, Warszawa.*

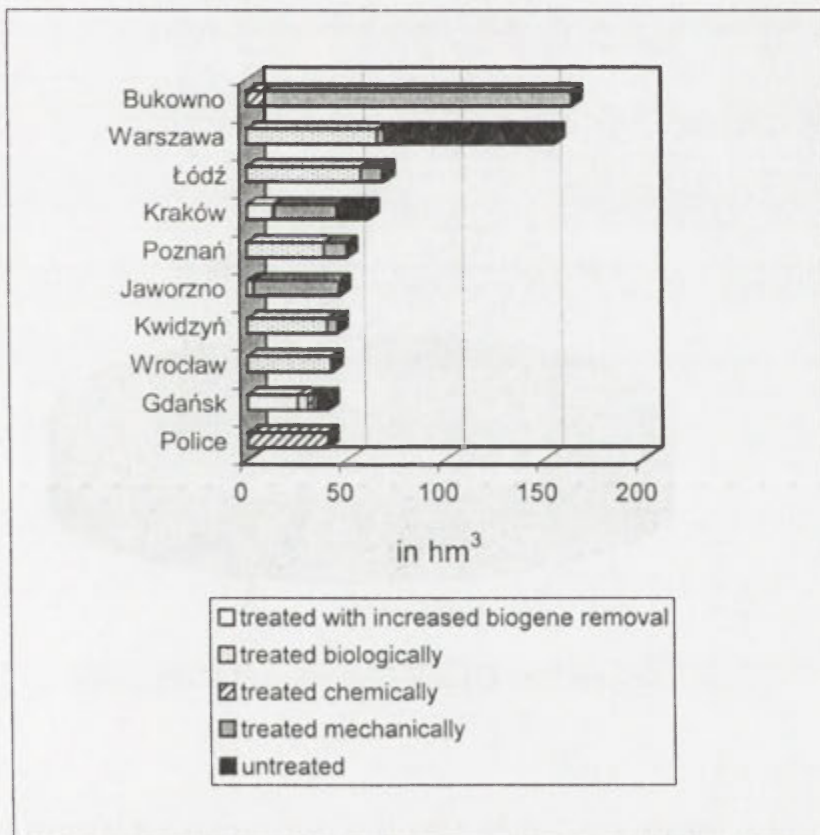


Fig. 4. The towns featuring the highest environmental hazard level in terms of sewage in 2000
 Source of data: *Ochrona Środowiska 2001 (Environmental protection 2001).
 Informacje i opracowania statystyczne. GUS, Warszawa.*

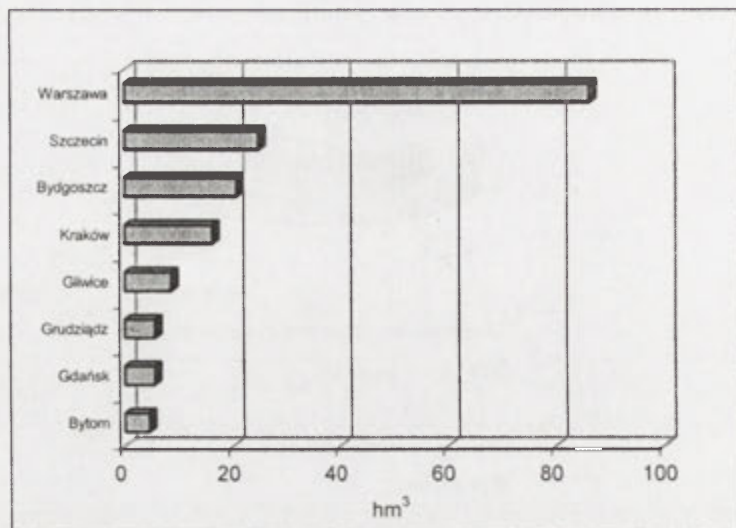


Fig. 5. The towns featuring the highest environmental hazard level in terms of untreated sewage in 2000
 Source of data: *Ochrona Środowiska 2001 (Environmental protection 2001).
 Informacje i opracowania statystyczne. GUS, Warszawa.*

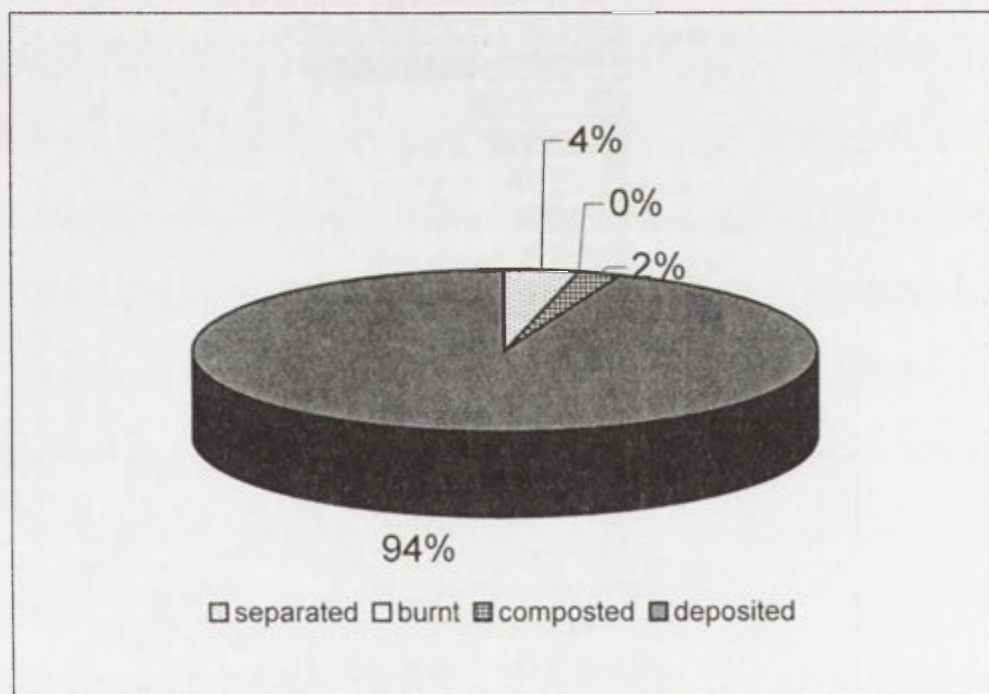


Fig. 6. The structure of the municipal solid wastes management in towns, in 2000
 Source of data: *Ochrona Środowiska 2001 (Environmental protection 2001).
 Informacje i opracowania statystyczne. GUS, Warszawa.*

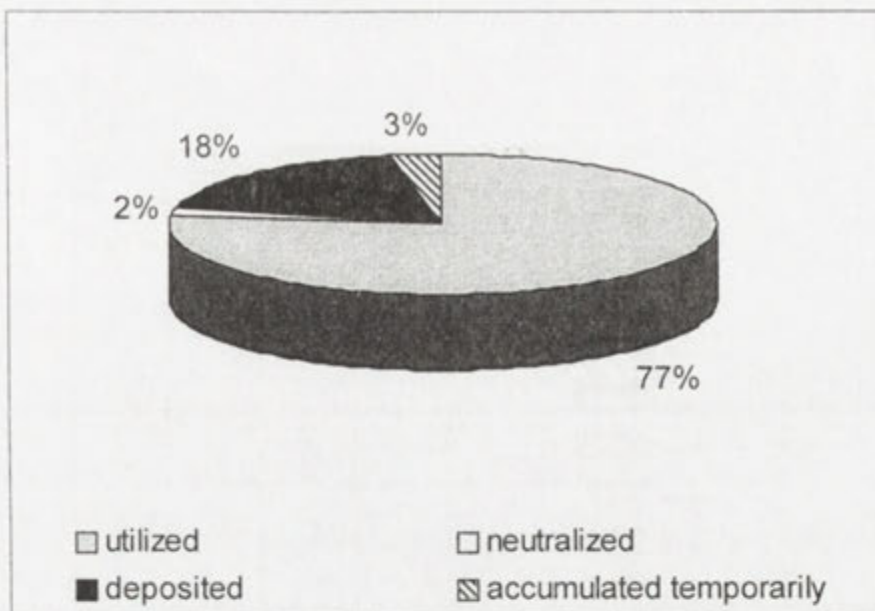


Fig. 7. The structure of the industrial solid wastes management in towns, in 2000
 Source of data: *Ochrona Środowiska 2001 (Environmental protection 2001)*.
Informacje i opracowania statystyczne. GUS, Warszawa.

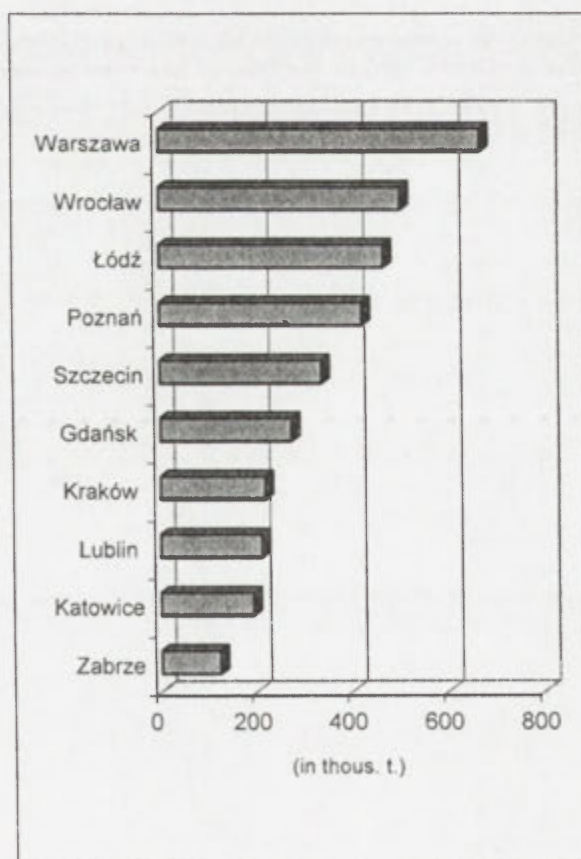


Fig. 8. The towns featuring the highest environmental hazard level through municipal solid wastes in 2000
 Source of data: *Ochrona Środowiska 2001 (Environmental protection 2001)*.
Informacje i opracowania statystyczne. GUS, Warszawa.

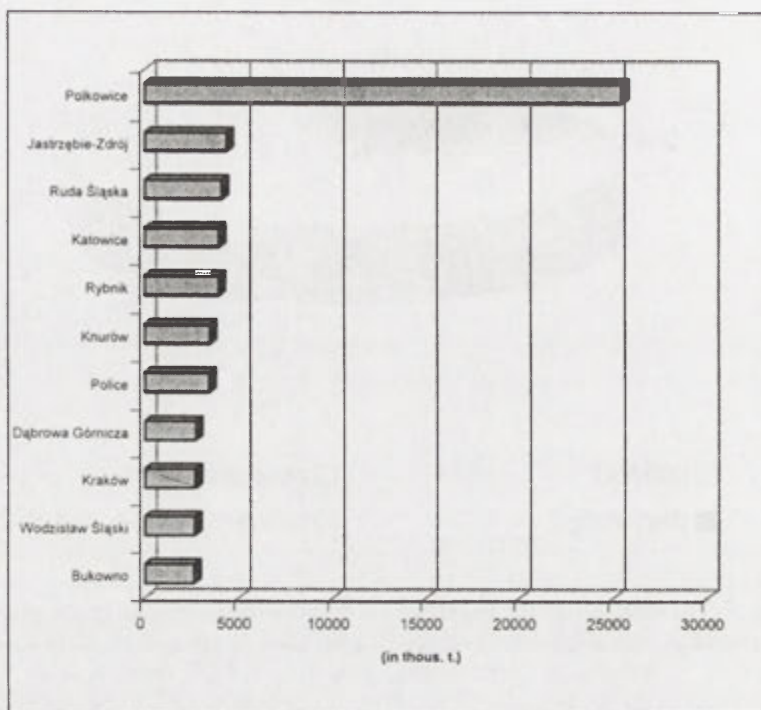


Fig. 9. The towns characterised by the highest volumes of industrial solid wastes in 2000
 Source of data: *Ochrona Środowiska 2001 (Environmental protection 2001)*.
Informacje i opracowania statystyczne. GUS, Warszawa.

The office space investments and the development of the management space in Warsaw in the period of transformation (1989-2001)

Przemysław Śleszyński

1. Introduction

The collapse of the command-and-distribute system in Poland and in the Central-Eastern Europe at the turn of the 1990s caused political, social and economic changes, referred to as transformation, endowed with an essential geographical aspect. One of the elements of formation of the new spatial structure is constituted by the investment projects, owing to which space is being modernised. In the population of investment projects a concentration in the large urban agglomerations is clearly visible. Thus, over the period of transformation in Poland, the agglomeration of Warsaw remains the unquestionable leader in terms of the scale of changes. The town accumulates the largest shares, also per capita, of foreign investments, national income, commercial and service investments, as well as investments into office space and housing (Table 1).

The purpose of the present report is to demonstrate and determine the leading role of Warsaw as the centre concentrating the investment making in the domain of office space during the period of transformation. The development of the office function is shown against the background of

development of the managerial space. A complement is provided through the comparisons – the available information allowing – with other towns of Poland and Europe.

The analysis was based upon various kinds of data. Information on office space investments originated primarily from the reports of the real estate agencies (Jones Lang LaSalle, Knight&Frank, Coriolis, DTZ Debenham Zadelhoff, etc.), information acquired from the town authorities in Warsaw, as well as from the reports published by the daily “Rzeczpospolita”. The data on the spatial distribution of the enterprises were taken from the Hoppenstedt Bonnier database and from the List of 500 largest enterprises in Poland of the daily “Rzeczpospolita”. Likewise, the results were used of the study carried out in the framework of the project grant 6PO4E 021 19, entitled “Transformation of the urban space in Warsaw in the years 1990-1999 on the example of the western part of the downtown”.

Table 1. The shares of Warsaw in various socio-economic categories

Characteristic	Year	Units	Poland	Warsaw market		Share of Warsaw market (%)	
				Warsaw	agglomeration	Warsaw	agglomeration
Population	2001	millions	38,6	1,6	2,6	4,1	6,7
Gross Domestic Product	1999	billions zlotys	615,1	77,9		12,7	
Entities of the national economy	2001	thousand	3 392	248	360	7,3	10,6
Sold production of industry	2000	billions zlotys	446,7	48,5		10,9	
Investment outlays in the national economy	2000	billions zlotys	92,0	24,9		27,1	
Revenues of communities budgets	2001	billions zlotys	61,0	4,9		8,0	
New office space	2001	thousands sq. m	2 500	1 700	1 750	68,0	70,0
New retail space	2001	thousands sq. m	1 500	600	700	40,0	46,7
New warehouse space	2001	thousands sq. m	800		700		87,5
Headquarters of 500 biggest companies	2001	number	500	165	171	33,0	34,2
Dwellings completed	2001	thousands	87,8	7,1		8,1	
	1995-2001	thousands	559,2	60,0		10,7	

Source: Own calculations of the author on the basis of data from GUS, the "Rzeczpospolita" daily, and the real estate market reports.

2. The office space market in Warsaw against the European background

The market of the commercial office space in Europe is estimated, according to various sources, at roughly 400-500 million sqm of usable floor area, with half of this number being concentrated in 20-25 agglomerations (Fig. 1). In terms of selected indicators, there is more than 1 sqm of office space per capita in Western Europe, and 1 sqm of this space corresponds to more than 22,000 EUR of the GDP, which is far away from the values attained in the former socialist countries. Thus, the same indicator values for the nine EU candidate countries are equal, respectively, 0.1 sqm and 40,000 EUR.

At the national level the largest total office space in Europe is found in Germany (more than 120 million sqm, concentrated mainly in Berlin, Munich, Frankfurt and Hamburg), while at the level

of urban centres – in Paris (31 million sqm) and in London (26 million sqm), these two being, side by side with Moscow, the largest urban agglomerations (approximately 10 million inhabitants each). The office space area is, however, strongly differentiated in the group of the smaller agglomerations, and the rule that the largest part of office space be concentrated in the main administrative centre does not apply. Hence, the volume of office space does not so much depend upon the population number in an agglomeration, as, first of all, upon the economic potential of the particular countries (Fig. 2). This, however, concerns only the countries with the mature market economies.

The Warsaw market of office space is, similarly as in the other European former socialist countries, a relatively young one. Yet, during some dozen years of transformation a distinct differentiation took place of the density of office

space in the administrative centres in Central-Eastern Europe. A detailed analysis indicates that, among the capitals of the former socialist countries, Warsaw had at the end of 2001 the largest area of the modern office space.

Against the European background, though, the Warsaw market is not very imposing. The limits to growth are defined, most probably, by the situation observed in other European capitals, having a similar rank in the system of European towns, like, in particular, Lisbon, Barcelona, Athens, Vienna, Copenhagen or Stockholm, in which office space totals range between 0.5 and 7 million sqm. The analysis of office space in these countries indicates that in conditions of preservation of the present position of Warsaw in the European urban system it can hardly be expected that large volumes of office space be constructed yet in Warsaw in the nearest future (in excess of 2 million sqm).

3. The development of the office space market in the years 1990-2002

Construction and adaptation of facilities for the administrative and office use after 1989 was in an obvious manner associated with the appearance of a high number of enterprises, mainly private ones. Thus, for instance, at the end of 1989, according to the data of the Central Statistical Office (GUS), there were in Warsaw some 8,000 enterprises, in 1993 – already 134,000, while in 2000 – as many as 249,000. Demand for offices was generated primarily by the large and foreign firms, with the bulk of this demand oriented towards high quality spaces, which until then had not existed at all. Although there was a relatively large office area associated with the public and party administration and the like (according to various estimates – between 1.8 and 2.2 million sqm), but in practice these facilities featured very low technical standards. Consequently, until the middle of the 1990s a vast majority of the enterprise seats were located either in the previously mentioned outdated office buildings, or in the hurriedly adapted apartments.

There were in 1989 in downtown Warsaw only three office buildings featuring relatively modern technological and equipment standards: the building of the Polish Airlines LOT (consisting of the office and hotel parts, facing the Central Railway Station), the Intraco II building, behind the

former (the colloquial name originating from one of the seats of the Elektrim company), and Intraco I (at Stawki street). The previously existing office buildings, such as Universal, constructed in the years 1964-65, were poorly equipped, in particular – they did not have the modern telecommunication nor building management systems, which are now the basic standard.

In the years 1989-2001 some 120 buildings were constructed in Warsaw having (at least in their major parts) the office space function on the total of 1.7 million sqm of floor area. The total usable space should now be estimated as equal roughly 1.9-2.1 million sqm. This number includes also the surfaces contained in the new trade and logistic centres and the apartment complexes. The housing projects, namely, especially those located in the central parts of town, are usually accompanied by commercial premises, situated in the lower parts of buildings, constructed with the aim of lowering the running costs of buildings.

The first new building offering the highest quality office space was the LIM Center at Jerozolimskie Avenue (17,000 sqm), constructed in 1989. The consecutive office buildings were terminated in 1992: the Silver Tower, commonly referred to as the Blue Skyscraper, at Bankowy square (this construction project having started yet in the 1980s), the City Shopping Centre at Złota street, Kolmex at Grzybowska street, Swede Center at Jerozolimskie Avenue, and Curtis Plaza at Wołoska street, within the quarter of Industrial Służewiec. Then, in the years 1993-1996 such buildings were constructed, in particular, as Warsaw Corporate Center at Emilii Plater street, IPC at Koszykowa street, and FIM Tower at Jerozolimskie Avenue.

The first “business park” type developments appeared in Warsaw in 1996, composed of several buildings, these ones located in the quarter of Mokotów, outside of the downtown area. In 1997 construction was terminated of the Ilmet building at the UN roundabout, the second phase of the Atrium Business Centre – Atrium Plaza at the John Paul II Avenue, the Sienna Center, and the Jabłonowski Palais at the Theatre Square.

The record-breaking number of 46 office buildings with the total office floor area of more than 600,000 sqm (more than 1/3 of the surface area constructed altogether in the years 1989-2001) were terminated in the years 1998-1999. Thus, in

1998, such buildings started to function as, in particular, Norway House at Lwowska street, Atrium Plaza at the John Paul II Avenue, the Warsaw Financial Center at Emilii Plater street, the Holland Park at the Three Crosses square, the Cascade building at the John Paul II Avenue, the Puławska Financial Center at the crossing of Puławska and Goworka streets, and the Nautilus, constructed at Nowogrodzka street.

During the single record-breaking year 1999 the volume of office space offered at the market exceeded 300,000 sqm. At the Jerozolimskie Avenue the Reform Plaza and the fourth building composing the Jerozolimskie Business Park were terminated. The consecutive two office buildings were added to the Mokotów Business Park at Domaniewska street (Orion and Sirius). The Kolmet building was constructed in the quarter of Bemowo, at Olbrachta street.

The tallest office building in Poland, the Warsaw Trade Tower at Chłodna street, having more than 70,000 sqm of floor area, was terminated in 2000. The remaining main construction projects concentrated in the strict downtown, where some 200,000 sqm of office space were given over for use (the Stock Exchange Centre, Stratos, Wspólna Center, Raiffeisen Business Center, Roma Center, and other), in the quarter of Wola – 120,000 sqm (along with the already mentioned Warsaw Trade Tower also the City Gate and Renaissance Tower), in Mokotów – 61,000 sqm (Optimus Tower, University Business Center), and in the suburban quarter of Włochy – 60,000 sqm (Kopernik Office Building, Sobinco Office Building).

The buildings terminated in 2001 include, in particular, the office building of the Polish Telecom at Moniuszki street, Focus at Filtrowa street, and Les Tours BRC at the crossing of Grzybowska and John Paul II Avenue.

The high rate of construction projects in the years 1998-2002 was caused by the fact that until 2000 high demand persisted for the offices of the highest quality standards – of A and B+ classes. According to various reports from the real estate market (Colliers International, Jones Lang La Salle, Knight&Frank, DTZ Debenham Zadelhoff), demand exceeded supply in the years 1995-2000 even by up to 80,000 sqm per annum (up to 15% of demand). Consequently, the rents within the strict downtown area in the years 1996-1998 reached even up to 50-60 USD per 1 sqm. In 2002, owing to

a definite saturation of the market, the prices dropped by more than factor of two.

Until the middle of the 1990s office spaces would be let at the early stages of construction process. Economic growth and high demand for new services allowed for the rapid development of the office space market, first of all within the highest quality sector.

Despite the demand for the new product, supply increased slowly. According to the report of Knight& Frank Polish investors did not have experience, while the foreign ones approached the Polish market with high apprehension, all this being amplified by the lack of appropriate sources of financing. Besides, the time in which an office building can be introduced onto the market is relatively long – at least 18-20 months. The difficulties appearing on the stage of preparation of the investment project (associated, in particular, with the obtaining of the respective licenses) prolonged yet this period of time. The factors mentioned caused that the market was continuously in the state of disequilibrium between demand and supply.

The financial success of the first investors, constructing office buildings in Warsaw, triggered off the investment boom. The buildings, which had been erected in the Polish capital until 1995 had very attractive repayment periods (in some cases even only 3-5 years). That is why the investors concentrated their activity in town, where high absorption capacity of the market was apparent even without detailed analyses. The foreign and Polish firms, developing dynamically in that period, would locate in their majority not only their main, but also their only seat of the enterprise, in Warsaw.

A popular phenomenon was constituted in the first half of the 1990s by the refurbishing of the existing facilities. The repairs and modifications of the older office buildings proceeded in Warsaw very quickly, in view of the profitability for the investors and the users. Irrespective of the fact that modernisation of the existing facilities is not always cheaper than constructing from scratch, this way of proceeding allows for the avoiding of the troubles related to many formal and technical aspects, associated with supply networks, design licenses, and property rights. The refurbished office buildings are located farther from the centre, but usually close to the important transport axes and the airport, and have the parking places secured for all those needing to park a car. For the tenants, though,

the most important was the much lower (most often by half) rent and the possibility of reserving very large surfaces. These were the reasons of developing the existing facilities within the Industrial Służewiec (Rutkowska-Gurak, 2000), as well as the facilities in the Industrial Targówek and Wola (Bielecki, 1995).

An essential problem was also constituted in the first period (until 1995) by the securing of financing for the investment projects planned. Due to the difficulties with obtaining of the necessary collaterals (right to land ownership), distrust as to the long-term economic stability of Poland, as well as the apprehensions related to the potential price plunge (which took place in Western Europe), only few foreign banks decided to credit construction of office buildings (Bielecki, 1995). Consequently, almost all of the more significant construction undertakings were financed either by the consortia of Polish and Western banks, or from own means of the investors. Thus, for instance, the Atrium complex (1st stage), worth 36 million USD was financed by the Skanska corporation (12 million USD), the EBRD (9 million USD), the Swedish bank Svenskt Kredit AB (6 million USD) and the consortium of Polish banks – PBR, Gdański and AmerBank (9 million USD). It was often more difficult to find an attractive and available construction plot in the centre, such that the property rights would be easily established, than to acquire the necessary funds. After having found an appropriate location for the construction project, the very rigorous requirements of the town architect had to be observed, which caused that many potential projects ceased to be profitable in view of insufficient volume. Another, less known problem was associated with the technical difficulty or impossibility of securing the connections with electricity, water, and gas supply networks, as well as the sewage system. Equally significant was the lack of competence or the indisposition of the local authorities to making of quick and binding decisions. The very re-organisation of the administrative structure of Warsaw delayed, in the opinion of many investors, the start of the new projects by half a year (Bielecki, 1995). Consequently, investment chaos and significant

prolongation of construction projects have set in. Examples are provided by the lengthy construction of the office buildings of Cascade at the John Paul II Avenue and Sienna Center at Twarda street, as well as the failure of the intended project of the new seat of the National Bank of Poland at the UN roundabout.

The database of the office space investment projects in Warsaw in the years 1990-2001 was elaborated on the basis of reports from the real estate market, the materials of the city authority of Warsaw, and own field observations. The largest facilities, which were constructed until 1999, and whose usable floor area exceeded 10,000 sqm, are presented in Table 2. The entire database encompasses 111 entities of the total surface equal 1.7 million sqm (Fig. 4). Three of the entities accounted for were business parks, composed of several buildings (some ten buildings in the Mokotów Business Park).

The analysis of the spatial distribution of the office facilities erected in the years 1989-2001 indicates that they were concentrated in a particular manner within the area located at the border of the Downtown and the quarter of Wola, to the West of the Palace of Culture and Science (Fig. 3). The highest density was observed within the urban planning division of Downtown West (259,000 sqm per 1 sq. km, Fig. 4). No important office facility projects were noted in, for instance, the communes of Białołęka, Wawer, Bemowo, and Wilanów. Within the right-bank Warsaw only three such projects were located, all of them, however, in the commune of the Centre.

The detailed analysis shows a significant differentiation between the particular urban planning divisions. The areas, in which the highest number of office facilities was constructed, were: Downtown South (18), Downtown North (15) and Downtown West (13). In terms of the floor area constructed the ranking was as follows: Downtown South, Downtown West, Downtown North. The division of Downtown West accounted for as much as 18.8% of the new office space. The average office space per one new office facility in Downtown West was 28,500 sqm and it was definitely one of the highest values of this indicator.

Table 2. The main office buildings constructed in the years 1990-2001 in Warsaw

Name	Address	Office space (thousands sqm)	Year	Urban district
Business Park				
Mokotów Business Park	Domaniewska /Postępu	100	1995-99	PDPS (South Służewiec)
Ochota Office Park	Jerozolimskie Avenue 181	65	1998	Szosa Krakowska
Jerozolimskie Business Park	Jerozolimskie Avenue 146B	50	1999	Okęcie-Opacz
Buildings				
Puławska Financial Center	Puławska/Goworka	93	1999	Old Mokotów
Warsaw Trade Tower	Chłodna/Towarowa	72	1999	West Śródmieście
Reduta	Jerozolimskie Avenue	68	1999	Szosa Krakowska
Warsaw Financial Center	Emilii Plater	61	1999	Center-North
PBK S.A.	Kasprzaka 25a/Towarowa	49	1999	Czyste
Atrium Tower	Jana Pawła II Avenue 75 C	45	1999	West Śródmieście
Jabłonowski Palace BRE/Citibank	Teatralny Square	36	1999	Center-North
Stock Exchange Center	Książęca	35	1999	South Powiśle
Impexmetal	Łucka	35	1995	West Śródmieście
Ilmet Complex	Jana Pawła II Avenue/ UN Roundabout	34	1996	West Śródmieście

4. The office space investments and the management space

Within the western part of the downtown of Warsaw the process of concentration of the decision-making functions has been observed. This process led to the appearance of the space, which could be called – in analogy to other kinds of geographical spaces – the “management space”. The decision centres are closely associated with the spatial distribution of the main seats of the enterprise boards, in the market economy mainly privately owned. The significance of the enterprises, whose headquarters are located in Warsaw is insofar significant, as they represent important financial power. Thus, in 1999 of 500 largest Polish enterprises (according to the list of the “Rzeczpospolita” daily) as many as 154 had their seats located in Warsaw. These 154 companies accounted for almost half of the revenues of all the businesses in Warsaw and for roughly ¼ of the revenues of all the enterprises in Poland (Śleszyński, 2002b).

The locations of the new office facilities in Warsaw are characterised by a relatively large spatial dispersion. Some investment projects were

situated quite far from the traditionally understood downtown (like the buildings constructed along the Jerozolimskie Avenue in the quarter of Ochota, or the Warsaw Trade Center building). The direct cause was most probably constituted by the problems associated with the uncertain property status of the land in the quarter of Downtown. On the other hand – in the western part of the centre there existed the post-industrial plots, which were relatively easy to take over. In addition, the local authorities in these areas were encouraging to making of investments, quite in contrast with the Downtown, where no consistent construction development policy could be formulated. In the words of, for instance, G. Sieczkowski (1995), “one can encounter very frequently the opinion that in the recent years no advantageous climate for investment making could be created in Warsaw. In this context quite a paradoxical situation arose, in which those who wished to build in Warsaw (and who disposed of adequate funds for this purpose) would flee the Downtown and go to other quarters, first of all to Wola and Ochota. In this manner the centre remained inadequately developed, while the areas considered until quite recently to be worse off, start to acquire the big city character.”

In connection with the appearance of the office facilities and creation of the management space a distinct extension took place of the centre in the western direction. The explanation for the fact of the increase of the centre area in Warsaw should first of all be sought in the rather limited magnitude of this area in the previous period (Śleszyński, 2002a). The core area of the socialist town, although very important in ideological terms, was economically weak. The western direction of the extension of the core area is most probably due to the de-industrialisation and the appearance of the quite vast post-industrial areas, relatively easily developed and easily changing their function. An important aspect was also constituted by the interest of the local authorities in the new investment projects.

The spatial distribution of the seats of enterprises shows first of all the concentration within the centre of Warsaw.¹ From among 1343 seats of the enterprises, accounted for, 941 (70.1%) were located in the commune of Warsaw-Centre, of which 821 in the left-bank part of the town. The quarter of Downtown was the location of 296 (22.0%) seats, Mokotów – of 209 (15.6%), and Wola – of 191 (14.2%). In terms of the urban planning divisions the definitely highest number was observed in Downtown South (113 seats). This division hosted, in particular, the seats of such firms as Bank Handlowy, Animex, Prokom Software, Polish Oil Mining and Gas Industry, Raiffeisen Polska, Budimex. The second area of concentration of the enterprise seats was constituted by the Southern Industrial-Warehousing Quarter (Southern Służewiec), where the seats of 100 enterprises were located, including, in particular, Real Polska, Unilever Polska, Henkel, and Renault Polska. Other urban planning divisions featuring high concentrations of the enterprise seats were

Downtown North (88), Downtown West (69), Czyste (49), and Cracow Road (42).

The most general regularity in the distribution of the seats of enterprises is constituted by the large disproportion between the left- and right-bank Warsaw. The left-bank part of the city accounted for 81.7% of the enterprise seats, corresponding to 88.4% of revenues of the companies considered. Locations of the large firms were characterised by higher concentration.

The analysis of the distribution of the seats according to the ECA classification showed that the highest concentration was displayed by the section J, while the lowest – by the sections DE and K. It can therefore be initially assumed that the degree of concentration depends upon the degree of development of activity. Thus, locations of the seats of businesses associated with the higher order activities (like financial services) are characterised by higher concentration indicators, while the locations of the businesses representing lower order activities (the so-called sector II – i.e. manufacturing) – are more dispersed. These regularities were also observed on the country-wide scale (Śleszyński, 2002b).

In the domain of the financial function the seats of the financial brokerage businesses were mainly concentrated in the Downtown, but also in the western part of the centre (eastern part of the quarter of Wola). The thus high concentration of the decision-making function with respect to the sector of the financial service was associated with the locations of seats of several large banks (PeKaO S.A., Kredyt Bank S.A., Bank Gospodarki Żywnościowej), as well as of the insurance companies (PZU Życie S.A., Commercial Union – Polska S.A.). A particularly high level of concentration was observed in the town planning divisions of Downtown West (21% of revenues of the most important financial enterprises in Warsaw) and Czyste, and on a detailed scale – by Grzybowska street. This may be the beginning of emergence of the financial quarter in Warsaw.

Further, an inquiry was made as to whether there exist any regularities in the distribution of the seats of enterprises according to the nature of activity. The state-related management space is first of all related to the traditional downtown area. Since before 1989 this area had much smaller dimensions than today (Śleszyński, 2002a), the phenomenon in question can be explained in such a manner that the foreign capital, and to a large

¹ There are altogether the main seats of 1343 companies, located in Warsaw, the sales of these companies exceeding in 1999 10 million Polish zlotys. The criterion of importance was therefore constituted by the economic magnitude of the enterprises. In the case of the majority of enterprises the sales were defined as the revenue from all kinds of activities: from sales proper (of products, commodities and materials), from the remaining operational activities, and from financial operations. In case of enterprises from the financial sector these were: the revenues from the financial operations and currency exchange (banks), gross contributions assigned to the tax year, and the revenues from the investment activity (insurance companies).

extent also the domestic private one, chose the seats of the enterprises in new locations, frequently in the attractive newly constructed buildings. Characteristic examples are provided in this context by the areas of Southern Służewiec, Downtown West, and the area along Jerozolimskie Avenue, where the foreign capital, entering Poland, and the new firms, invested a lot in the new office buildings, described before. A similar phenomenon occurred to a large extent, as well, with respect to the Polish privatised enterprises from, in particular, the financial sector.

5. Summary

The development of office space in Warsaw was closely associated with the emergence of the non-state management space. The exceptionally high rate of increase of the office space resulted from the fact that Warsaw, with its agglomeration, is the unquestioned leader in terms of the scale of changes taking place during the period of transformation. The largest parts of the per capita foreign investments, national income, and the trade and service, office and housing investments are concentrated in the capital city. Consequently, at the beginning of the 21st century Warsaw became the largest market of the commercial office space not only in Poland, but also in the entire Central-Eastern Europe.

Two main processes shaping the development of the management space in Warsaw should be expected to take place in the future. First, further movements of the enterprise seats will be taking place, associated with the new infrastructural investments, and with the expected inflow of foreign capital. These movements will to a large extent be directed towards the western part of the centre. Second, further de-concentration of the management space, related to the emergence of the competitive clusters of such concentration, outside of the traditional core area, is possible.

The author is in the year 2002 the fellow of the Foundation for Polish Science.

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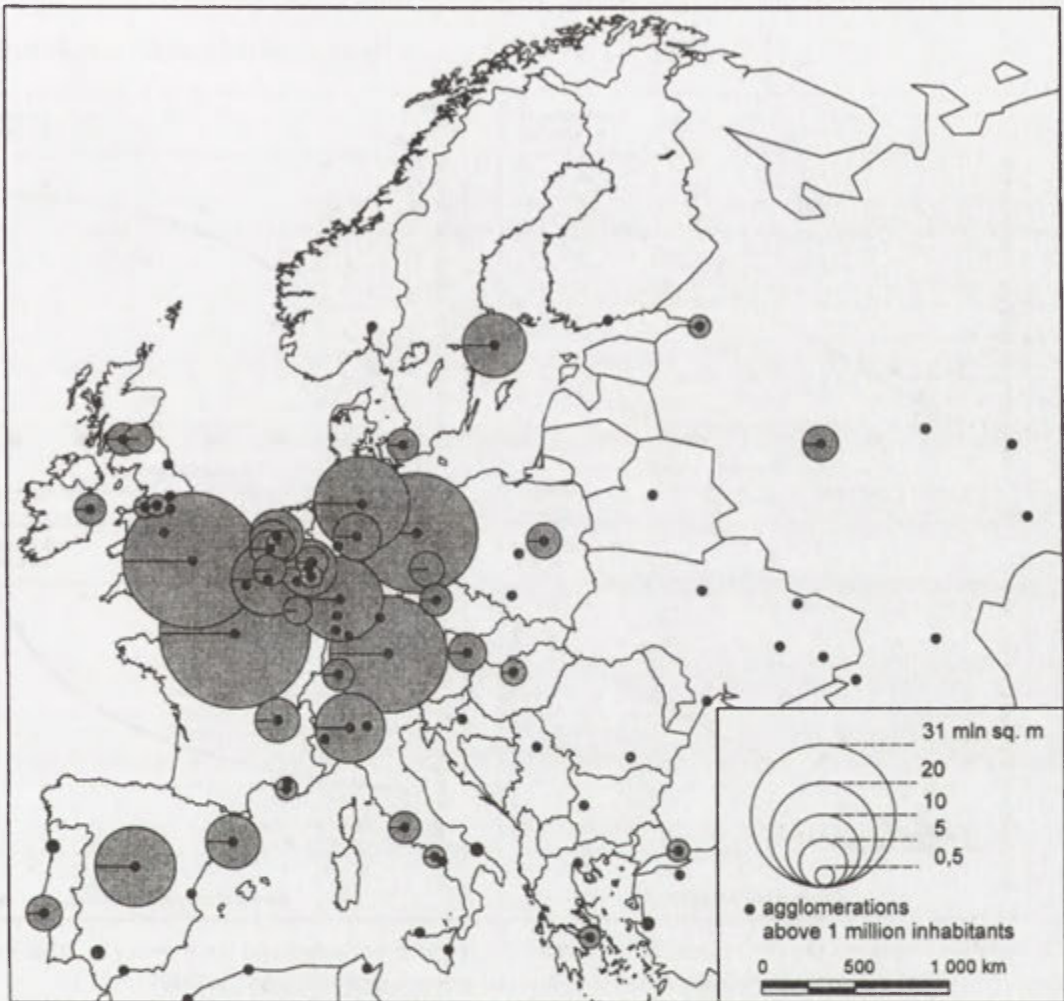


Fig. 1. Commercial office space in Europe in 2001 (in centres with more than 500,000 sqm each)
 Source: own elaboration on the basis of the real estate agencies' reports

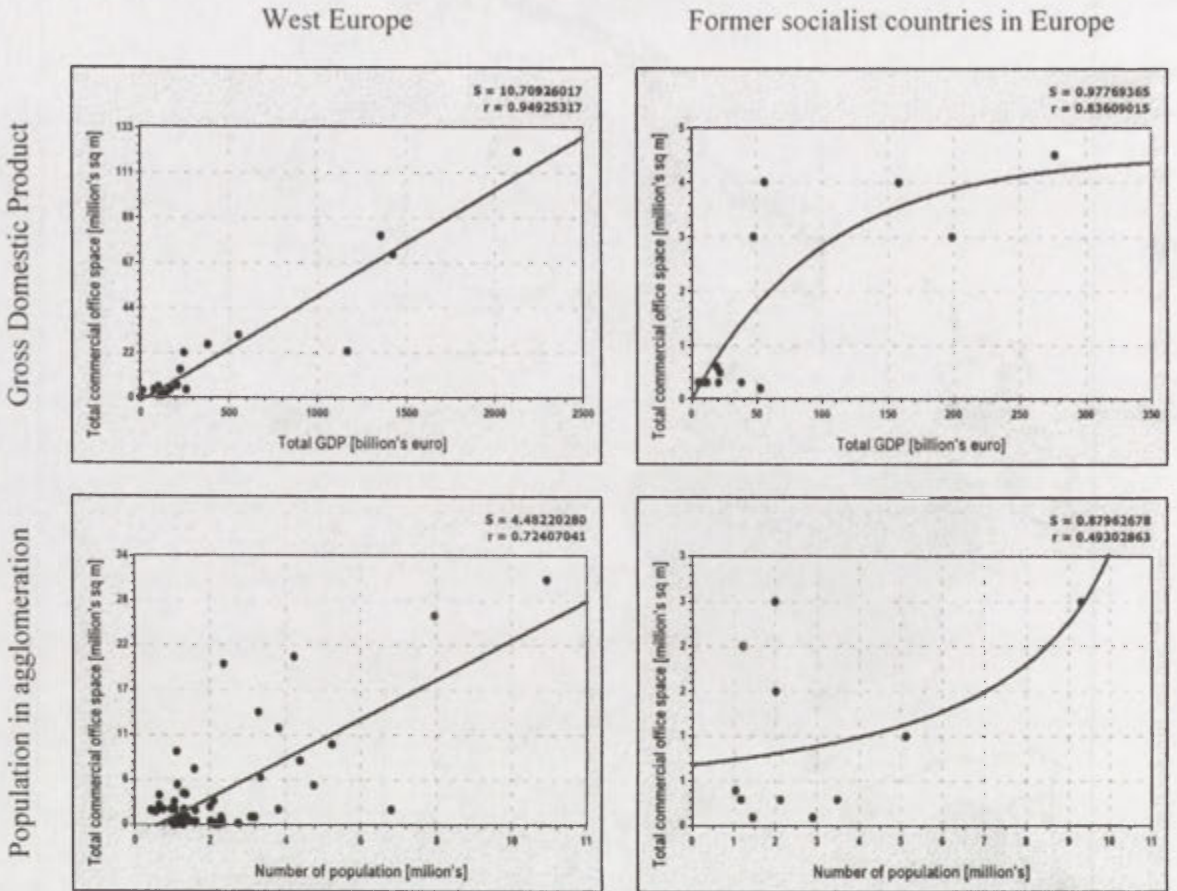


Fig. 2. Relations between the Gross Domestic Product in particular countries and the number of inhabitants in the agglomerations vs. the commercial office space in Europe in 2001

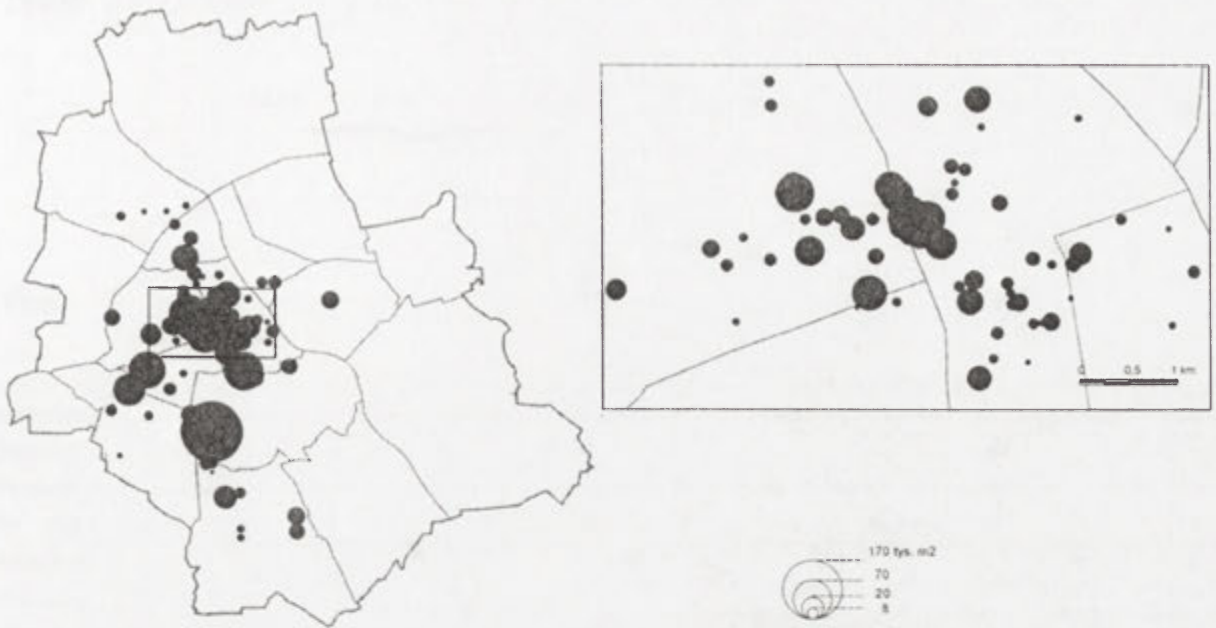


Fig. 3. The modern office space of commercial character in the facilities constructed in Warsaw in the years 1989-2001

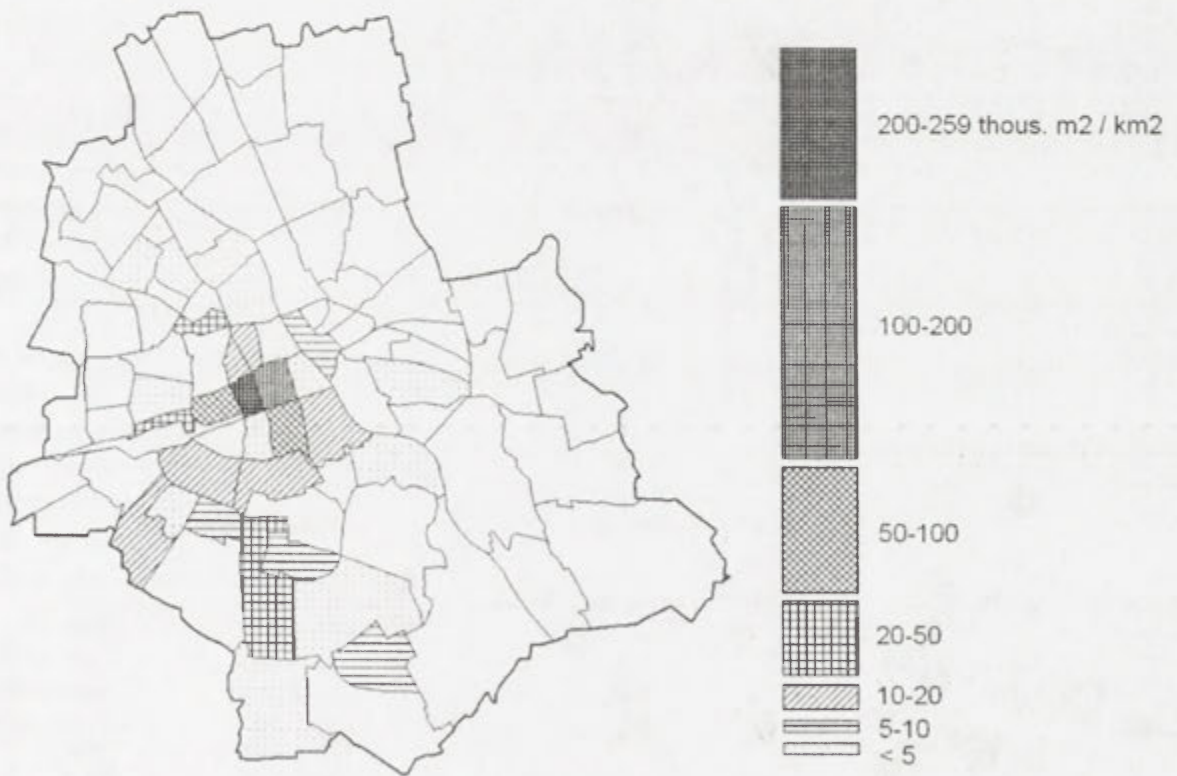
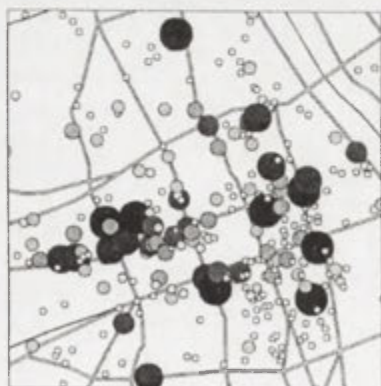


Fig. 4. Density of the modern office space of commercial character in the facilities constructed in the years 1989-2001, according to urban planning divisions



Central Business District



South Służewiec



Total revenues

●	5 000 - 13 700 mln zlotys	(15)
●	2 000 - 5 000	(16)
●	1 000 - 2 000	(27)
●	500 - 1 000	(46)
○	200 - 500	(102)
○	100 - 200	(90)
○	10 - 100	(631)

Fig. 5. Spatial distribution of the main seats of the more important enterprises in Warsaw in 1999 (the revenues of the enterprises located at the same addresses were summed up)

New dimensions of the socio-spatial differentiation in Polish towns¹

Grzegorz Węclawowicz

1. From the socialist to the post-socialist town

The process of industrialisation of Polish territories, along with the accompanying urbanisation, during the entire 20th century, brought ultimately the transformation of the Polish society into the urban one. The specific feature of urbanisation on Polish lands consisted in a particular long period of persistence of the gentry-and-peasant character of Polish culture, until the first decades of the 20th century. It was only as late as after the World War II that the vision of the urban way of life took final shape, partly imposed by the forced industrialisation and ideological motivations.

Urbanisation and industrialisation took in Poland, after the World War II, a special character, mainly due to the delay in the urbanisation process in relation to the rate of industrialisation, entailing a different nature of the respective phenomena than that of the analogous ones taking place in Western Europe.

Hence, the specific aspect of Polish towns is to a large degree the effect of the processes of the socialist urbanisation and industrialisation. Urbanisation, as best designated by J. Musila (1984), had the character of "directed urbanisation". On the other hand, industrialisation started to be referred to with addition of qualifications of "imposed", "forced". Likewise, the proposition that urbanisation and industrialisation were the processes leading to modernisation of Polish society was put to doubt (Węgleński 1992).

In Polish conditions the highest importance in terms of the shaping of the socio-spatial structure of towns had to be attributed to industrialisation,

fulfilling first of all the political and ideological functions (Węclawowicz 1988). The requirements of the industrialisation process determined to a large extent the entire system of quantitative and spatial allocation of housing resources, according to the hierarchy of the individual professional groups. The accumulating shortage of housing resources in towns in relation to the manpower employed in them was the primary cause of the competition for the housing resources within the urban space, leading to the appearance of the interest groups of strongly differentiated housing conditions, despite the egalitarian assumptions of the socialist ideology. It was also concluded that the basic element determining the socio-spatial structure of the town was constituted by the social value of labour force. This value, though, was arbitrarily defined by application of the ideological and political criteria, to which the entire policy of spatial allocation of the inhabitants of towns, conform to the directions of the housing strategy implemented, was subordinated (Węclawowicz 1975, 1981, 1988). Further, a descriptive concept took shape of the Polish town as a socialist town, assuming that the town is to a large extent the product of the socio-economic system.

The development of the post-socialist town has not started with the end of the socialism in Poland. Certain elements of transformation of urban space had become visible long before the year 1989. The fundamental role was played by the discrediting of the idea of social egalitarianism in urban space.

The economic and political crisis of the decline phase of real socialism brought the attempts of systemic reform and the limitation to control over urban space, but was unable to reverse the

¹ The report is an updated version of the summary to Chapter 3, entitled "Selected problems of towns and urban agglomerations in Poland", contained in the book by Grzegorz Węclawowicz, *Przestrzeń i społeczeństwo współczesnej Polski* (*The space and the society of contemporary Poland*; in Polish), PWN, Warszawa, 2002.

changes taking place. The notion of new spatial dimension can be applied to the phenomena, which appeared for the first time, or the ones, which acquired new aspects of spatial differentiation, and new change dynamics. The new phenomena, in this sense, were constituted by the spontaneous processes of development of the illegal garden plots, illegal street trade, open and public appearance of the patriotic, anticommunist and religious symbols, emergence of the elitist areas of wealth, and of poverty, etc.

The character of new phenomena should certainly be attributed to the processes of liberation of Polish towns of the features associated with the socialist town.

The most important political and economic processes, having direct influence on the development of modern Polish towns, include the following ones:

- the return of the significance of land rent and other market-related mechanisms,
- the changes in the land ownership structure,
- the transfer of control over space from the centre to the local authorities, due to the establishment of the true-to-life territorial self-governments, representing the interests of the local communities,
- the increase of the number of actors competing for urban space and for concrete locations,
- the change of spatial allocation criteria from political to economic,
- the radical transformations of the employment structure, consisting primarily in the decrease of employment in the manufacturing sector to the advantage of employment in the service sector,
- the development of the new urban social and political structure.

2. Spatial consequences of the new political and economic processes

The transition to market economy caused, first of all, changes in the social structure. The change of the economic position of the social groups and categories to date, and the formation of the new categories and groups initiated the process of spatial changes. The spatial changes can be classified according to the notion of residential mobility, that is – movement for permanent residence to other parts of towns, corresponding to the new social position, and adjustment of the

structure of land use, architecture and landscape to the needs of the dominating category of inhabitants. The change of value of the particular locations imposes a new criterion of allocation of inhabitants (spatial segregation), according to the economic capacities of the social categories competing for the given segment of urban space.

2.1. Increase of socio-spatial differentiation

An essential increase of the socio-spatial differentiation took place during the 1990s on both regional scale and in all the towns (Węclawowicz 1997, 1999). The spatial structure of this differentiation had been inscribed in urban space already before 1989, to a large extent determined by the then socio-spatial structure. In other words, the rich or elitist areas became even more so, while the poor ones – yet poorer.

The basic expression of the increase of socio-spatial differentiation is the appearance of the new and the significant extension of the already existing areas of poverty and wealth in towns.

It seems that poverty in Polish towns, similarly as this took place quite some time ago already in the towns of Western Europe, ceases to be uniquely the effect of unemployment, low skills, and marginalisation on the labour market.

Attention was being attracted to the fact of abandonment of the concept of welfare state, having taken the obligation of securing the minimum level of well-being for all the citizens. Further, it was maintained that the socio-demographic changes, resulting from the disintegration of the traditional forms and family life styles, individualisation and differentiation of the life styles, entail an increased poverty hazard.

It was concluded on the basis of the analysis of spatial locations and concentration of poverty in Polish towns that this is the primary element of the growing socio-spatial polarisation (Węclawowicz 2001). Poverty is a factor in social exclusion and the obstacle to social integration (Zalewska 1997; Czaplinski, Panek 2000). The first, “superficial” aspect of the social exclusion of an individual or a household – a family – is constituted by spatial segregation.

A particular social category of people living in poverty is formed by the homeless. Towns are the areas of concentration of the homeless, since urban space offers higher chances for survival and for finding refuge than the countryside. The

homeless come primarily to Warsaw and to other large cities. In such cities they can find, first of all, various kinds of assistance centres: refuges, overnight hostels, social lodgings, free lunches. The areas of concentration of the homeless – depending upon the season of the year – are especially the transport nodes and facilities of towns: stations, channels, bridges, as well as: parks, areas of degraded housing, abandoned and/or meant for demolition, cellars, and the staircases of large housing blocks. On the other hand, the institutional places of concentration of the homeless in towns are constituted by the refuges, night time hostels, drunkards' detainment cells, hospitals, lone mother centres, eating-houses, medical aid facilities, aggression victims' centres, as well as day and permanent care centres for children and the young.

The fundamental criterion in the competition for the new, better housing resources and the advantageous spatial locations is constituted currently solely by the economic power. The drive towards social segregation is intensifying, along with the decline and marginalisation of the areas of old housing. The wealthy population starts to concentrate in the spatially isolated enclaves of high housing standard. The poor – on the other hand – tend to be concentrated within the areas of old, worn out housing.

The first statistically tangible expression of the increase of differentiation of the above kind is the appearance of delays in apartment rent payment. The next in the sequence of symptoms is differentiation of the areas of town with respect to the degree of equipment of households in various appliances. Then, there is wearing and non-replacement of the not repaired technical infrastructure of flats, the phenomena of social pathology get intensified, and finally – the “forced” migration takes place, leading directly to social segregation.

The demographic differences, and especially the division of urban space into the demographically “young” and “old” areas, remain an essential element of the socio-spatial differentiation of towns. The basic spatial variable, which differentiates the demographic composition of the particular urban areas is the distance from the centre. The central parts of towns are usually characterised by the highest shares of the elderly and women. The peripheral areas feature, on the other hand, a distinctly higher share of the younger

population and children. A typical phenomenon is constituted by the concentration of the particular demographic groups within individual housing estates, depending upon their period of construction and settling of the inhabitants.

The areas of the highest concentration of the population in the age of 50-60 years (on the basis of the data from the National Census of 1988, meaning that this group moved by now to the bracket of 60-70 years) often coincide with the areas of blue collar housing estates, whose inhabitants are nowadays mainly living off their retirement pays and pensions. Such housing estates and quarters appear in the socio-spatial structure of towns as the relatively new problem areas of concentration of poverty.

2.2. Transformation of the urban landscape and architecture, endowment of many locations with new meaning and value

The transformations of the urban landscape and architecture, as well as the changes in the symbolic meaning of numerous places and their endowment with the pre-communist or the entirely new values, can be mainly seen in the replacement of the communist symbols and names by the national or historical symbols, or by the economic values.

An omnipresent expression of this process is the return to the pre-war names of streets or the changes of their names, liquidation of the monuments to the communist authority and ideology, with their replacement by the new ones, along with the changes of the functions of many buildings, having been used by the central political authorities, into the economic and service functions. Here, a spectacular example is provided by the location of the Warsaw stock exchange – the symbol of capitalism – in the building of the former Central Committee of the Polish United Workers' Party, the ruling communist party, as well as the emergence and persistence over more than ten years of a bazaar on the Salute Square in the very heart of Warsaw, next to the Palace of Culture and Science, having served in the past as the most representative place of the mass political manifestations, expressing the propaganda support for the communist power.

A change occurred, as well, with respect to the significance and possibility of exposing the sacred space, which existed always in the

“socialist” towns in Poland, and the attempts of eliminating it had never succeeded altogether. Nowadays, the sacred space, despite the much bigger possibilities of marking its presence in urban space, has to compete with other symbols of the free market “values”.

The evolution of towns in Poland, especially those built in the form of enormous block areas of the quasi-modernist architectural forms, with excessive functionality of the land, will most presumably take yet several decades. The currently existing old physical structure of the towns will be imposing and constraining the behaviour and the social activity, adapted to the new requirements of the market economy, and thereby will be increasing the costs of functioning of towns. The radical transformation of the socialist “block estates” is, likewise, associated with the urban modernisation costs, whose scale is beyond the capacity of covering them in the foreseeable future.

2.3. Function changes and land use intensity increase

Specific processes are taking place within the downtown areas of Polish towns, depending upon the degree of economic success of a town, in conditions of market economy. In these towns, which are still in the economic crisis, within their central areas (usually covered by old buildings), the succession takes place by the poor and the social fringe. Meanwhile, there is also the progressing wearing and social marginalisation of the relatively new (post-war) housing estates. This applies, in a particular manner, to the municipal resources, but also partly to the ones of the housing co-operatives.

Gradual revitalisation takes place, on the other hand, in towns enjoying economic successes, especially within the historical parts of towns, along with the classical “gentryfication” process – the gradual gaining of domination by the higher socio-professional strata. In effect, frequently, a mosaic-like spatial pattern emerges, that is – the one in which the poor and the rich live as neighbours in the same portion of space.

A new phenomenon is constituted by the development of the modern urban centres, adapted to the requirements of market economy. Side by side with the energetic filling of the gaps in the intensity of building cover, there is also formation of the specialised new areas functioning like the

classical CBDs (Central Business Districts). In case of Warsaw this applies to the strengthening of specialisation of the areas dominated by the metropolitan functions. In parallel, specialised areas, featuring financial and management functions, develop, in which banks and seats of the largest industrial corporations and enterprises are concentrated (Śleszyński 2002). The dynamic growth of office space is accompanied by the modernisation and reconstruction of technical infrastructure. Consequently, the landscape and the architecture of the core areas of Polish towns are changing.

There is an element, which disturbs the aesthetics and the effective functioning of the centres, but also is a symptom of high dynamics of the economic processes, namely the development of bazaars in the centres of towns. Despite the fact that they are treated as transitory forms, they might turn out a permanent component of the post-socialist town. The bazaars are the indicators of dynamics of the urban society, and of the location economies not accounted for by the planners, and serve as the consumption niche for the poor, as well as the niche of the non-taxed and hardly registered economic activity. The bazaars have also become, at least in the initial phase, the primary element of increase of land use intensity and the change of its function, and in particular – the return of the old, pre-socialist consumption function of the downtown.

A new element in the organisation of urban space of the post-socialist town is constituted by the location of commercial centres, shopping malls and supermarkets. These developments are usually situated on the post-industrial and warehousing areas, on the wastelands and little used areas, as well as the “empty” spaces, used agriculturally. These areas have never in the past been meant for such functions. Locations of this kind impact, in turn, upon the location of other service and trade outlets. The empirical studies, conducted in Cracow, show also that the emergence of the supermarkets, contrary to the common opinions, does not entail liquidation of the retail trade network in the vicinity. Instead, the number of such small outlets increases (Więclaw 2000).

2.4. Change in the spatial behaviour of the urban dwellers

The transformation of the socio-spatial and organisational structure of the town caused the

changes in the spatial behaviour of the inhabitants in terms of shopping and job commuting. In this sphere, as well, an increasing separation takes place of the space used between the rich and the poor. On the one hand, we deal with the population participating in the avalanche-like growth of the car transport, who also constitute the customers of the increasingly aggressively developing networks of supermarkets and luxury shops, and on the other hand there are the people using exclusively the declining municipal transport and doing their shopping at the cheap bazaars.

Another, new dimension of the socio-spatial behaviour is constituted by the electoral behaviour. The analysis of the electoral preferences between 1989 and the parliamentary elections of 1997 shows the polarisation of the electoral preferences depending upon the social character of the housing estate or quarter. The areas of town are taking shape, which are increasingly monolithic with respect to the political attitudes and preferences (Węclawowicz 1995; Węclawowicz Jarosz, Śleszyński 1998).

3. The contemporary political and economic challenges

Since the revival of the local self-governmental institutions the increasing polarisation of spatial interests, causing social conflicts, has constituted an important new phenomenon. There are still no effective mechanisms of reconciliation and negotiation in cases of necessity of satisfying opposing interests of the growing number of actors competing for urban space. The town continues to be rather the stage for the open or hidden conflicts than the stage for collaboration (Sagan 2000). The objectives of urban development ought to be shaped by the town dwellers, but the achievement of such a state through mass participation of the inhabitants will yet take a long time and will necessitate the conduct of a conscious social policy, which, in actual practice, is not in the interest of the political parties, and of such socio-professional categories as planners and the employees of the urban administration offices.

Adaptation of towns to the requirements of the market economy will require, side by side with the significant development of the service functions, the new industrialisation, which would

make up for the errors of the enforced socialist industrialisation.

Yet another element, shaping the development of towns in Poland, is constituted by the increasingly strong impact of the process of globalisation and the integration with the settlement system of the unifying Europe. The blending of the national urban systems of the particular countries of the European Union, despite the changing settings of connections and the development of the hierarchical patterns, is significantly advanced (Korcelli 2000), and in the nearest future this will also apply to the system of Polish towns. Thus, Polish towns have to relatively quickly adapt and fight for their place in the broader urban hierarchy. The welfare and the standard of living of their inhabitants depend heavily upon this.

One should also expect the differentiation of successes in the economic development of towns. The "winners" to date in the socio-economic transformation are primarily the large towns, featuring the differentiated functional structure, while the "losers" were usually small townships, located within the areas of economic depression, or the mono-functional factory towns. The process of differentiation of the economic achievements of towns, with, additionally, a regional dimension, will most probably progress.

The competitiveness of towns, regions, communes, counties, and all other kinds of territorial units, having any form of administrative rule, or existing only in the social awareness, became one of the new themes of study in the framework of geography, spatial economy, economics, and generally – in social sciences.

Consequently, globalisation, European integration and competitiveness, became the notions referring to the most general new processes indirectly deciding of the scale of socio-spatial differentiation also within urban space.

The transformation of the social structure will certainly have the fundamental significance in the shaping of the contemporary and future image of towns in the nearest decades. The new middle class, economically independent of the state sector, appeared in the socio-spatial structure. The role of education changed, as well. In parallel, the new category of the rich takes shape, and the sphere of poverty spreads out considerably. The "classical" new category of the sphere of poverty will encompass the unemployed and the homeless, and in the future – the swelling wave of migrants.

The ownership transformations, and especially privatisation, as well as abandonment of subsidisation of the housing economy, will entail more intensive processes of housing segregation among the inhabitants in urban space, according to the financial criterion. These processes will be paralleled by the rapid stratification in terms of wealth and the intensifying socio-spatial polarisation. This type of socio-spatial restructuring will probably be accompanied – given the shortage of apartments – by numerous social tensions and conflicts.

The socio-spatial polarisation is taking place currently in the majority of towns in a very dynamic manner. Here, the basic significance should be attached to the inherited socio-spatial structure. Urban space was endowed with proper value assignments, and this valuation system is currently being transformed under a stronger pressure from the market mechanisms. Yet, in spite of this, it appears that the social character of the particular areas of the town, once shaped, preserves to a large extent its validity. The scale of the socio-spatial differentiation increases. This phenomenon is associated with the pauperisation of the significant portions of the society and the gaining of the broader capacity of changing the place of residence. The increased degree of social mobility, both upward and downward the hierarchy, is accompanied by the similarly increased spatial mobility. The quarters of towns having low social status or featuring bad environmental conditions, or labour market accessibility, are being abandoned by the more economically mobile persons. On the other hand, the ones, who could not afford housing in the better quarters, would be pushed into such areas.

An intensification of the increase of social segregation should be expected. The new categories of poverty and wealth appeared, occupying increasingly specific locations in the socio-spatial structure of towns (Warzywod-Kruszyńska 1997; Węclawowicz 1997, 2001; Skupowa 2000; Rydz 2000). Monitoring of this phenomenon constitutes one of the basic sources of knowledge on transformations in the socio-spatial structures and development of the new urban structure.

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Part III

***Slovaks and Poles – Neighbours
in Central Europe***

The contacts of the inhabitants of Poland with Slovakia in the light of survey studies

Tomasz Komornicki

1. Introduction

The regional analysis of any kind of international contacts in Poland is not an easy task. The statistical data are most often available on the national level, less frequently in the setting of provinces, and only sporadically at the more detailed levels (counties, communes). The situation is even more difficult with respect to the study of social contacts with abroad on the personal level. The sole way of gathering information on the international connections of the citizens is constituted by the survey studies. Such a study was carried out in the year 2001 at the Institute of Geography and Spatial Organization of the Polish Academy of Sciences, in the framework of the research project of the State Committee for Scientific Research, entitled "Regional differentiation of the socio-economic connections with abroad across the territory of Poland". The study was carried out in 33 towns of Poland (see Figs. 1-3). The selection of towns was purposeful. All the province capitals were taken in, along with one smaller town in each of the provinces, except for the capital province of Masovia, where two such smaller towns were selected. In view of the nature of selection we should emphasise that the study does not concern in a continuous manner the territory of the country, but only the concrete 33 urban centres. There were altogether 1314 respondents, who answered the questions of the survey questionnaire. The selection of the respondents had a mixed character. The survey was conducted in public places, with participation of persons formally residing in a given town, according to the division into genders and age groups (strata). The selection within the particular age groups of each of genders was random (objective). In the province capitals 50 questionnaires were to filled in, while in the remaining towns – 30.

The survey instrument was composed of 15 items. The groups of items concerned:

- 1) the basic data of the respondent (the heading),
- 2) the travels abroad of the respondents during the last five years,
- 3) the maintenance of contacts with abroad via telecommunication (telephone, mail, electronic mail) during the last five years,
- 4) the direct personal contacts with the citizens of other countries (family and friends abroad, hosting of foreigners at home),
- 5) the access to and the use of foreign language media (cable and satellite TV, internet, press), including the knowledge of foreign languages,
- 6) the own assessment of the respondents as to the directions and intensity of foreign contacts of individual provinces.

The purpose of the present report is to analyse the survey material from the point of view of assessment of the Polish-Slovak contacts at the personal level. The analysis omits the questions concerning the knowledge of languages and the access to foreign media, since the percentage of persons speaking Slovak and taking advantage of the Slovak mass media was next to null.

2. Travels to Slovakia

According to the data from the Border Guard, Poles went abroad in 2001 as many as 54 million times. A vast majority of these "foreign trips", though, lasted just a couple of hours (shopping in Germany, tourist wandering along the border, including the mountains at the Polish-Slovak border). Thus, each and every Pole went abroad 1.4 times in 2001. Now, among the persons included in the study considered here, 55.6% were abroad at least once in the period 1996-2001. This share was perceptibly higher for the province capitals than for the small towns (60.1% and 48.5%, respectively). The respondents would

decidedly most often travel during the last five years to Germany (28%). The subsequent ranks were occupied by Czechia (visited by 14.2% of respondents) and Slovakia (9.5%). The percentage shares of persons visiting France and Italy were also close to 10%. Thus, we can conclude that Slovakia is among the most popular directions of travels in Poland. This is caused by the relatively small distance, tourist attractiveness of the country, low prices of tourist service, lack of language barrier, as well as the fact that the transit routes to Hungary, Austria, and the countries of Southern Europe all pass through Slovakia.

A simple indicator of intensity of foreign trips was constructed on the basis of the total number of trips and their frequency (W_{iwz}). The overall value of the indicator for the entire sample is 2.08 and it is higher for the inhabitants of the province capitals (2.31) than for the respondents from the smaller towns (1.72). The generally higher intensity of foreign trips is observed in the south-western part of the country, and it decreases towards the East and North-east. The intensity of travels to Slovakia is distinctly related to the geographical distance from the border (see Fig. 1). The belt of increased intensity encompasses the southern provinces: Subcarpathian, Little Polish, and Silesian, to then decrease both towards the West and the North of this area. It must be emphasised, though, that travelling to Slovakia was declared by the respondents from virtually all the centres (even from the smaller towns of northern Poland, such as Kartuzy or Kołobrzeg).

3. Contacts with Slovakia through communication channels

International contacts with the use of the communication media seem to have a special value from the point of view of relations of particular regions with abroad. These contacts are not, as this was the case of the trips, dependent upon the preferred tourist destinations. At the same time, in connection with the associated cost, such contacts are hardly incidental. There were three separate items in the questionnaire, which treated the frequency of the telephone talks, the posting of the traditional mail, and the e-mails. A simple coefficient was constructed of the intensity of contacts with the (tele)communication media, W_1 (encompassing all the three manners of communicating).

The average intensity of contacts through the communication media for the entire sample was $W_1 = 3.06$, with the value being much higher for the voivodship capitals ($W_1=3.59$) than for the small towns ($W_1=2.23$). A similar role was played in the overall intensity of contacts maintained with the communication media by the telephone connections and the traditional mail (each of them accounting for roughly 40% of the entire result for the whole sample), while the significance of electronic mail was by half smaller (20%). In total, during the last five years, 46.2% of respondents made phone calls abroad, 40.9% of them sent letters abroad, and 14.8% maintained electronic correspondence. Yet, the contacts with the use of the communication means with Slovakia turned out to be very rare. The analogous percentages for this country correspond merely to 1.2%, 0.8% and 0.2%. The relatively slightly higher share of the phoning persons is most probably associated with the tourist travels (like booking of accommodation with private hosts). In the regional setting a much higher significance of the traditional correspondence with Slovakia was observed in Cracow (6%) and in the Silesian locality of Wisła (6.7%).

The summary index W_1 , calculated for individual countries, was characterised on the country-wide scale by the distinct domination of Germany (as much as 0.9), followed by the United States (0.5). The subsequent positions in the ranking were occupied by the United Kingdom, France, Italy, Sweden, and Czechia. In the case of Slovakia the value of the index was at mere 0.043. This was exactly the same value as for the down-under Australia. The connections with Slovakia were stronger in the broadly understood south-eastern Poland (first of all in Cracow and Lublin), and in Warsaw (see Fig. 2). In contrast to the contacts with Czechia they would not occur in other parts of the country (especially in the West). It is also highly characteristic that no respondent from Nowy Targ, a local centre of the cross-border petty trade with Slovakia, admitted communicating with Slovakia. This may be the evidence that the basis for the contacts with the neighbours is constituted there rather by the economic and tourist connections than by the personal ties.

4. Direct contacts

Hosting of the citizens of foreign countries at home is a far less frequent phenomenon than travelling abroad or the international phone calls. It is most often a proof of a close personal contact. It can also be the expression of the intensive economic ties, like, for instance, the contacts in the framework of the economic activity conducted at home, or the illegal employment of foreigners. The scale of the latter two kinds of phenomena is indirectly illustrated by the fact that while the number of visits of foreigners in Poland in 2000 was roughly 84.5 million, only 3.5 million persons were accommodated in a hotel or another facility of this type. The other ones either stayed in Poland just a couple of hours, or were, exactly, hosted in private homes.

There were 40.3% of respondents, who admitted having hosted at home foreigners during the last five years. On the scale of the entire sample the citizens of Germany are decidedly most often hosted (close to 20% of respondents had them as guests in their homes), followed by the citizens of the United States (5.3%). Relatively frequently the Russians (3.5%), British (3.0%), and Ukrainians (2.8%) are hosted as well. Now, it is surprising how rarely from among the neighbouring countries the citizens of Slovakia, Lithuania and Belarus' were hosted at home by the respondents. Thus, only 1% of the respondents admitted having Slovaks as accommodated guests. This share, though, was much higher for such towns as Cracow (8.7%), Nowy Targ (6.7%) and Rzeszów (6%).

Poland was for decades a country of emigration. According to various estimates 8 to 15 million persons of Polish extraction live currently outside of Poland. The respective item of the survey instrument, though, dealt not just with family, but also with close acquaintances. The purpose was namely not to analyse the family ties of the Polish diaspora, but to identify all the strong personal ties, irrespective of their character. Close to ¾ of the respondents stated that they have family or close acquaintances abroad. Decidedly the highest percentage shares of the respondents declared having family or acquaintances in Germany (33.1%) and in the United States (24.7%). The third rank was occupied by Canada (6.5%), followed by France, United Kingdom, Sweden, Italy, and Australia. Again, a surprise was constituted by the low numbers of persons admitting of having such

close personal ties in all the neighbouring countries except for Germany. In the case of Slovakia this was just 0.5%. The sole centre, where this share was clearly higher, was Rzeszów (8%).

5. The assessment of contacts with Slovakia

The respondents were also asked to provide their own, subjective assessment of the intensity of the socio-economic contacts of their voivodship with other countries. They would indicate the countries, with which the region of their residence had very strong, strong or at least medium strong relations. A simple indicator of the perceived intensity of contacts (W_{PNK}) was constructed on the basis of their responses. The decidedly highest values of the indicator W_{PNK} are noted for the perception of contacts with Germany (the average for all the respondents in the sample as high as 0.999). The ties with Slovakia were paid attention to almost exclusively in the centres located close to the border with this country, that is – in Cracow, Nowy Targ, Rzeszów, and Wisła (see Fig. 3). It is characteristic that the values of the indicator were higher in Cracow than in Nowy Targ, located much closer to the border. Besides, while, for instance, the contacts with Czechia were indicated also by the respondents residing deeper in the country, the existence of connections with Slovakia was practically not suggested by anybody living North of Kielce.

6. Summary

On the basis of the general analysis of the entire survey material the primary factors were distinguished conditioning the geographical differentiation of the international connections at the personal level. These factors are as follows:

- 1) geographical distance,
- 2) historical connections,
- 3) earlier migration flows,
- 4) spatial distribution of ethnic minorities,
- 5) distribution of the economic activities, including foreign investments,
- 6) incomes of the population (conditioning not only foreign trips, but also international phone calls).

It appears that with respect to the personal contacts with Slovakia the factors of geographical distance and incomes of the population are decisive. In the second case the dependence,

however, is not linear. Since the basis for the bilateral contacts is constituted by tourism, we must remember that the travels to Slovakia are often undertaken by the persons of relatively lower incomes (this is often the cheapest of the ways of spending vacation time). A definite significance for the distribution of the bilateral ties must also be assigned to the spatial pattern of economic activity. This is demonstrated by the partial similarity of the spatial distribution of the centres featuring stronger contacts and the distribution of the Polish-Slovak trade (Komornicki, 2002), see Fig. 4.

As mentioned already, it should be considered that the basis for the personal contacts of the Polish citizens with Slovakia, is constituted by outbound tourism. This tourist movement involves the persons from the entire country, first of all, though, from the South-eastern Poland. A clearly less pronounced role is played by the contacts associated with economic ties. The latter concern mainly southern Poland in general, and Warsaw. There is, on the other hand, an almost complete lack of the "family" ties (except for Rzeszów). It is characteristic that the strongest contacts occur not necessarily directly close to the border (thus, in particular, Cracow appears to be far more strongly connected to Slovakia than Nowy Targ). Hence, the so numerous coach connections in the border regions (Komornicki, 1996;

Więckowski, 2000), seem to serve first of all the tourist movement (from the outside areas) and the petty cross-border trade, and not the personal contacts of the inhabitants. A positive element is, on the other hand, constituted by the fact that the persons living in the regions geographically neighbouring upon Slovakia perceive this country as strongly associated with their respective provinces.

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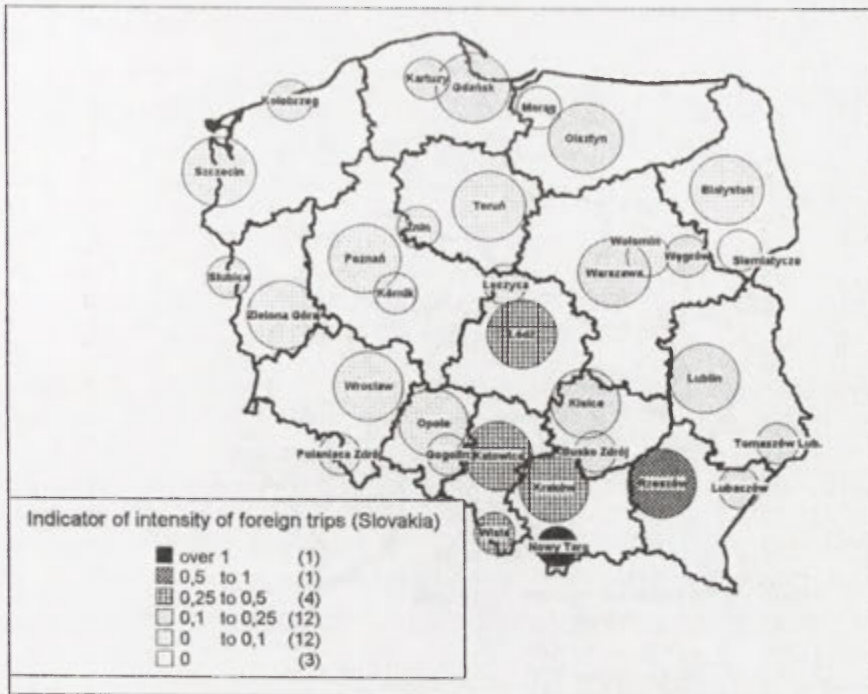


Fig. 1. Intensity of trips to Slovakia on the basis of survey
Source: own elaboration

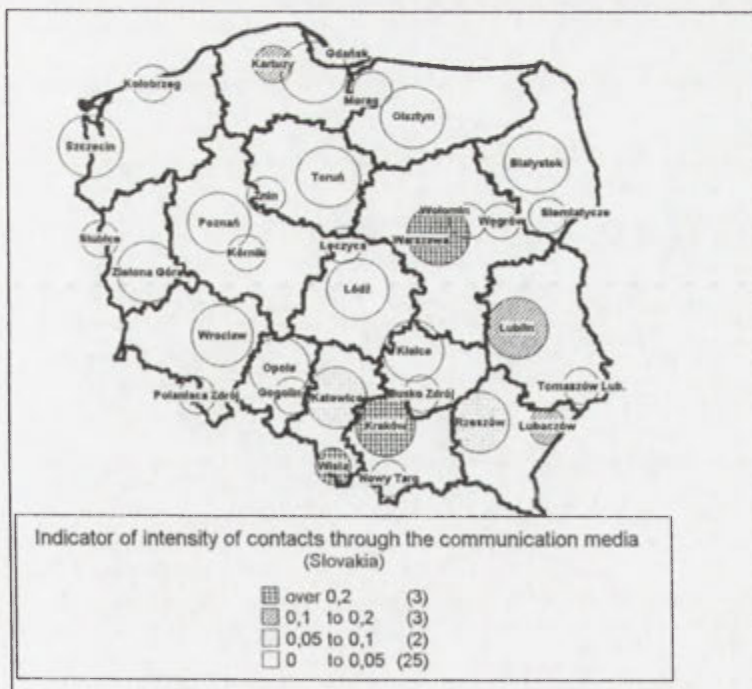


Fig. 2. Contacts with Slovakia through communication channels on the basis of survey
Source: own elaboration

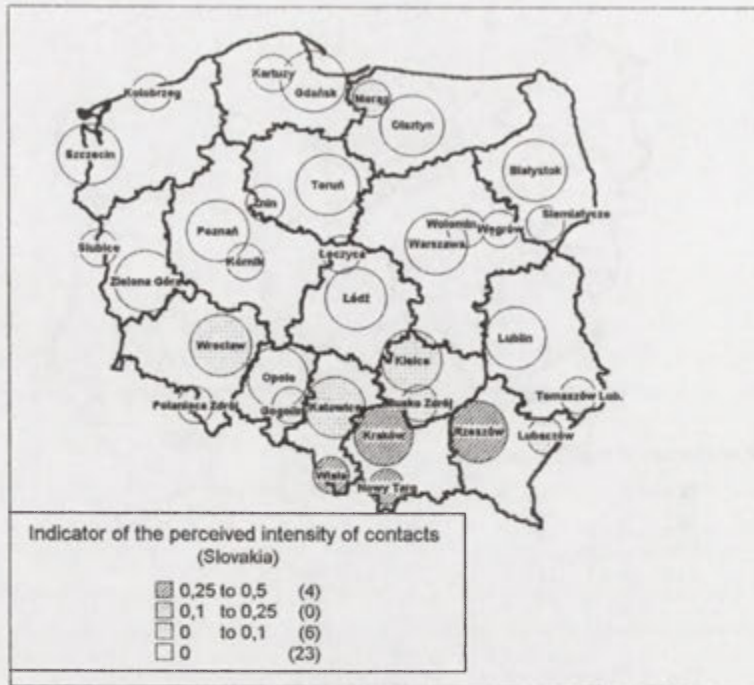


Fig. 3. The assessment of contacts with Slovakia on the basis of survey
Source: own elaboration

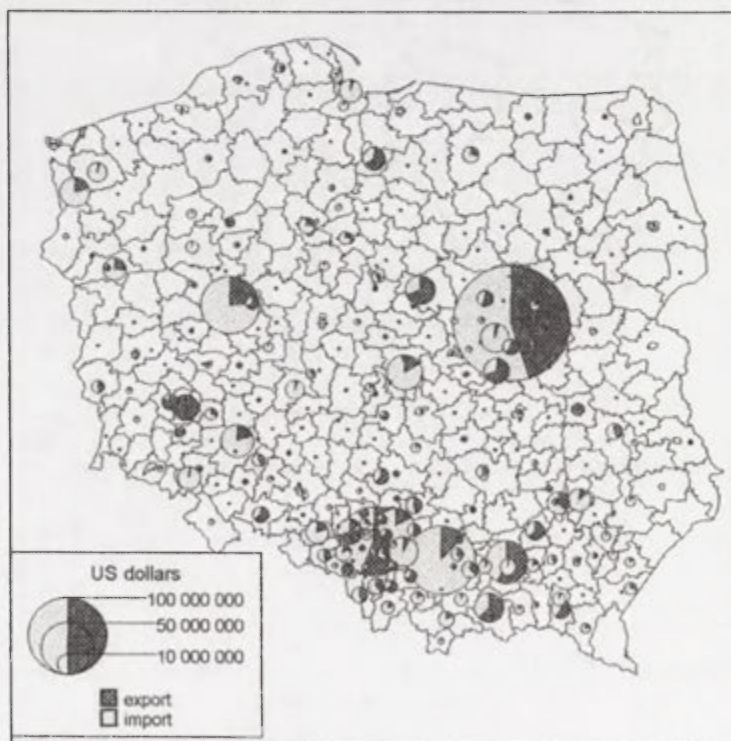


Fig. 4. Polish-Slovak trade exchange in the year 2000
Source: own elaboration on the basis of the Foreign Trade Information Centre in Warsaw

The phenomenon of the Polish part of Spisz and Orawa

Mariusz Kowalski

Introduction

The Polish part of the regions of Spisz and Orawa seems to be the most interesting segment of the Polish-Slovak borderland in terms of its cultural traditions. This area is not only characterised by the border-adjacent location, but also by the past, rich in historical events, by the ethnic identity of the inhabitants, and by the visible presence of the representatives of the Slovak national minority. Further, it is the sole segment of the present border with Slovakia, on which the boundary has been changing its course since the late Middle Ages.

The historical conditions

The region in question constituted the political and cultural borderland since at least the Middle Ages. This was certainly partly due to the natural conditions. The crescent of the Carpathian Mts., and at the same time the watershed between the Baltic and the Black Sea basins, hampering transport and communication, and slowing down the advance of the settlement and the development of land, formed in a way a natural boundary separating the settlement groups, the political entities, and thereby – also a factor in cultural differentiation.

In the early Middle Ages this boundary separated the Polish and Slovak tribes. In this context, we should not be speaking, however, of a borderline, but rather of a broad separating zone. The first state organisms were being established. On the southern side – the Nitran statehood, on the northern side – the Cracow (Vistulian) statehood. Both these political organisms became the parts of bigger wholes. On one side the Hungarian state was taking shape, in which the Slovak lands were playing an important political and cultural role. On the other side – the Polish state, where the region of Cracow played for a long time the leading role in the Kingdom of Poland. These two states became multicultural and multiethnic organisms. The neighbourhood setting persisted until today (see

Fig. 1). On the one hand there is the Slovak state, which emerged owing to the breakdown of the old Hungarian kingdom in accordance with the ethnic criterion (emancipation of the Slovak nation). On the other hand, there is the Polish state, which also took shape on the basis of the ethnic criterion (emancipation of the Polish nation).

The areas of the present-day Polish Spisz and Orawa regions have for a long time been unpopulated. Both the hard natural conditions (climate, accessibility of the area), and the dangers related to the borderland location, were not encouraging to settle. Population increase, scarcity of land, and technological progress, though, caused that the unpopulated areas were limited to the minimum. The development of the settlement systems brought the precise determination of the political boundary. It is hard to say what had been the earlier situation (there are premises for concluding that the northern Spisz belonged to the Polish state), but, starting with the beginning of the 14th century the boundary between the political organisms had the same course as until the World War I. Thus, the whole of Spisz and of Orawa belonged to the Hungarian kingdom.

The borderland character of the region, and the natural conditions for the settlement system were conducive to the cultural diversity. Colonisation of these lands involved not only the representatives of the groups characteristic for the bordering political entities (in this case: Slovaks and Poles), but also other ones, in some cases specially brought there for this purpose, composed of the ethnically diverse colons. That is how, side by side with Poles and Slovaks, Germans (Saxons) appeared here, introducing the novel methods of conduct of economy, as well as Wallachians (with a strong Ruthenian tang), capable of managing in the hard mountainous conditions.

The Polish part of Spisz started to be settled earlier than the Polish part of Orawa (in the 13th century). The compact settlement developments of Slovak origin have not reached here at all. Polish population would flow in from the North, while

from the South – the Germans (Saxons), brought to Spisz by the Hungarian kings. These Germans got assimilated in the Polish environment, but left numerous traces (the manner of conducting economy, the names of localities). They did not only establish the villages in Spisz, like Krempace (originally: Krummbach), Frydman (Friedman), Dursztyn (Durchstein), Kacwin (Katzwinkel), but also crossed the Hungarian-Polish border and were one of the first settlers in the region of Podhale (in particular, the localities of Szaflary, Waksmund, Szlembark, Czorsztyn, Harklowa, Grywałd, Krauszów).

The subsequent factor, responsible for the cultural specificity of the northern part of Spisz was the inflow of the Wallachian-Ruthenian population (the 14th-15th centuries). A part of these settlers have not undergone assimilation, forming the Ruthenian settlements, existing on the Slovak side until today (like Ostrunia). The cultural image of these areas developed also under a significant influence from the Slovak and Hungarian cultures. The influences of the diverse cultural traditions brought the formation of the original group of the Spisz mountaineers (mountaineers: “Górale”). Similarly as the Podhale mountaineers, they spoke the dialects of the Polish language.

The actual development of the settlement system in the Polish part of Orawa started as late as in the 17th century. The population participating in the settling originated from the areas of Poland – from the regions of Podhale and Żywiec. This population would acquire a better economic and legal status on the area of Hungary. The not so ancient dating of this settlement process and the lack of the foreign ethnic admixtures caused that this population (Orawa mountaineers or “Górale”) has been, and still is, more attached to Polish culture and tradition than the Spisz mountaineers. Some of the Hungarian censuses from before the World War I showed this population as Polish, while the Spisz “Górale” were considered Slovaks, despite their use of Polish language.

Notwithstanding the secular tradition of the course of boundary between the Polish and Slovak lands, the language aspect and the origin of the population caused that at the instant of regaining of independence (1918) the Polish side undertook the efforts meant to move the boundary southward. Initially, a plebiscite was to decide of the territorial attribution of the northern parts of Spisz and Orawa. In view of the Polish-Bolshevik war a

compromise solution was chosen. A part of the envisaged plebiscite area, a dozen or so villages in Spisz (Fig. 3) and a similar number in Orawa (Fig. 4) were incorporated into the Polish state (the final demarcation took place in 1924). The remaining part of the two regions remained within the confines of Slovakia, along with a high share of the Polish-speaking mountaineer population (Fig. 2). In 1938 the Polish side forced the annexation of a couple of further villages in Spisz and Orawa. Then, in the years 1939-1945, due to the defeat of Poland and the German-Slovak agreement, the entire territories of both Spisz and Orawa were annexed by Slovakia. After the World War II the boundary from the period of 1924-1938 was re-established.

The national and ethnic problems

The national awareness started to take shape among the mountaineer population at the turn of the 20th century. In this process, an important role – side by side with ethnic origin – was played by the place of residence. Thus, on the area of historical Poland, its southern part belonging at that time to the Austrian empire (Galicia) the mountaineers identified themselves with the Polish nationality. On the territory of Upper Hungary (Slovakia) they would get under the influence of the Slovak national idea. After the World War I, when the new state borders were being determined, the whole process was only at its beginning. Thus, on the areas of Spisz and Orawa, incorporated into Poland, the Polish and Slovak influences crossed. For some, the historical tradition of being a part of Slovakia was more important, while for the other ones – the stronger language and cultural ties with Poland would take the first place. The divisions would cross the villages and families. One brother would consider himself a Pole, while the other one – a Slovak. Some were satisfied with new course of the boundary, while the other ones, to the contrary, wished the return of the old border. Conflicts arose, not infrequently ending with bloodshed.

Several decades after the demarcation of the new boundaries the situation appears to have stabilised. This, however, does not mean that the national divisions ceased to exist. Thus, the conditions in Slovakia seem to be clear. The mountaineers, even if speaking the dialects of Polish language, declare the Slovak nationality (Podolak, 1998). One can only identify there the

phenomenon of a strong regionalism and the awareness of kinship with the "Górale" in Poland. The official data are put to doubt or rejected only by few scholars (Skawiński, 1996).

Lack of the nationality censuses in Poland makes the assessment of the situation in the Polish parts of Spisz and Orawa difficult. The fact that the Slovak minority exists is known because of the activity of the Slovak Cultural Association, the Slovak educational system, and the Slovak-language religious life (Slovak liturgy in the churches).

A definite help in the determination of the actual numbers of the Slovak population may be obtained from the results of political elections. A clear difference is observed with this respect between the Orawa mountaineers, among whom the Slovak candidates gained just a trace of support, and the Spisz "Górale", among whom this support amounted to roughly 1/5 (Table 1, Figs. 5 and 6). Likewise, a differentiation is well seen within the area of Spisz. There are villages, in which half of the voters opted for the minority list, and the ones, in which only single votes for this list would be recorded. At the same time, one can hardly imagine that the Slovaks would not support their list, while other national minorities, both in Poland (Lithuanians, Ukrainians, Germans), and in Slovakia (Hungarians) provide massive support their ethnic candidates in the political elections. Hence, the results of the elections would indicate that there is virtually no Slovak population on the area of Polish Orawa, while it constitutes a definite minority in Polish Spisz. Taken together in the two regions this population group could amount to a bit more than 3,000 persons (Table 1). The assessment based upon the results of elections may get confirmed by the national census. Its results should be known soon. It is true that the representatives of the national minorities put to doubt its reliability. Yet, if the results from the census turn out to be in accordance with the ones obtained from the elections, the supporting evidence will be very significant.

The adoption of the hypothesis of the proportionality between the numbers of votes for the minority list with the representatives of the Slovak minority in Spisz and Orawa and the respective population numbers would amount to a revision of the convictions as to the numbers of the Slovak population in these regions. There are assessments, according to which the total number

of Slovaks for the two regions would amount to 25,000 (Ciągwa, 1997). This would be equivalent to the statement that some 50% of the inhabitants of this area are of Slovak nationality. The estimates based upon the election results do not confirm such a state of things. The number of 25,000 of Slovaks in Poland could be accepted only under the assumption that there are roughly 20,000 Slovaks living in Poland outside of Spisz and Orawa. In the neighbouring region of Podhale (the present Nowy Targ and Tatra counties, without the Spisz and Orawa parts) the minority list obtained exactly 59 votes, which might suggest that some 200 persons of Slovak nationality could live on this territory. Persons originating from Spisz and Orawa are also encountered in numerous urban centres, first of all in the southern part of the country. There are, as well, persons of Slovak extraction having come from Slovakia, living in Poland. The Circles of the Slovak Cultural Association in Poland exist outside of Spisz (17) and Orawa (14) also in Cracow (1), Warsaw (1), and Silesia (1). The Association has altogether close to 4,000 members. The most active Slovak community – outside of Spisz and Orawa – is the one in Cracow. The seat of the Board of the Slovak Association in Poland is located in Cracow (Ciągwa, 1997). The minority list got in Cracow 244 votes in the elections. This may correspond to some 750 persons, belonging mainly to the Slovak and Ukrainian national groups. It is hardly possible to assess the proportions between the two. It is even harder to carry out similar estimates for other parts of Poland.

Slovaks do not distinguish themselves in any special manner from the rest of the Polish society when the elections do not involve the groups representing their national interests. In such cases Polish Slovaks from Spisz vote in their majority for the rightist parties, similarly as their neighbours in Spisz, considering themselves Polish. This is very much like the electoral behaviour of the Silesians. On the other hand, the Lithuanians living in Poland usually support the leftist parties (Kowalski, 2000). Perhaps both in the case of Silesians of the pro-German orientation, and the "Górale" of the pro-Slovak orientation, this behaviour is the effect of the cultural affinity (language, religion, customs) with the neighbours, from whom they differ only by the national option. As it is shown by the respective studies, the cultural roots play a very important role in the shaping of electoral behaviour of the inhabitants of Poland. In

this case the representatives of the regional Catholic groups having developed within the Polish ethnic area, irrespective of the national option, are inclined to give a bigger support to the rightist parties.

Taking into account the long period, during which a part of Spisz has belonged to the Polish state, the still quite significant percentage share of the Slovak minority ought to be considered an evidence of the viability of the Slovak influence. An important role in the preservation of this state of things was played by the influence of the Slovak society exerted yet within the framework of the Hungarian state. Some significance ought also to be attached to the period of annexation of the Polish part of Spisz to Slovakia, i.e. the years 1939-1945 (Kamiński, 1990). One should, as well, have in mind that the Polish education could develop only in the Polish part of Spisz, and only after the year 1920. The Slovak educational system functioned until 1920 and after 1939 on both sides of the present boundary. Given these circumstances no wonder that on the Slovak side of the border a complete ideological Slovakisation of the mountaineer population could take place. The example of the Polish-Slovak borderland becomes yet another confirmation of the proposition that it is not the objective characteristics (language, ethnic origin), but the awareness, modified by numerous factors, that is the main factor decisive for the choice of the national option. In the case of the area under study the main driving force was most apparently the 20th century political delimitation and the resulting citizenship.

Thus, among the "Górale" in Slovakia, despite the preservation of the language and the mountaineer regionalism, the Slovak option took the upper hand, while in Poland – Polish identity got strengthened. Yet, in Poland, among a part of "Górale", first of all in Spisz, the Slovak identity developed and persisted. In some villages this may be the case of the majority of population.

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Table 1. Hypothetical number of Slovaks in the Polish part of Spisz and Orawa based on the results of parliamentary voting in 1991

Area	Entitled to vote	Given votes	Valid votes	Votes for Electoral Bloc of Minorities	Share of the votes given for Electoral Bloc of Minorities	Number of total population	Estimated number of Slovaks
Spisz	9063	5026	4642	980	21,11	14190	2996
Orawa	15571	7527	7131	71	1,00	24379	244
Razem:	24634	12553	11773	1051	8,93	38569	3230



Fig. 1. Area of Spisz and Orava regions on the background of present borders



Fig. 2. Gorals ethnographic area



Fig. 3. Polish part of Spisz



Fig. 4. Polish part of Orawa

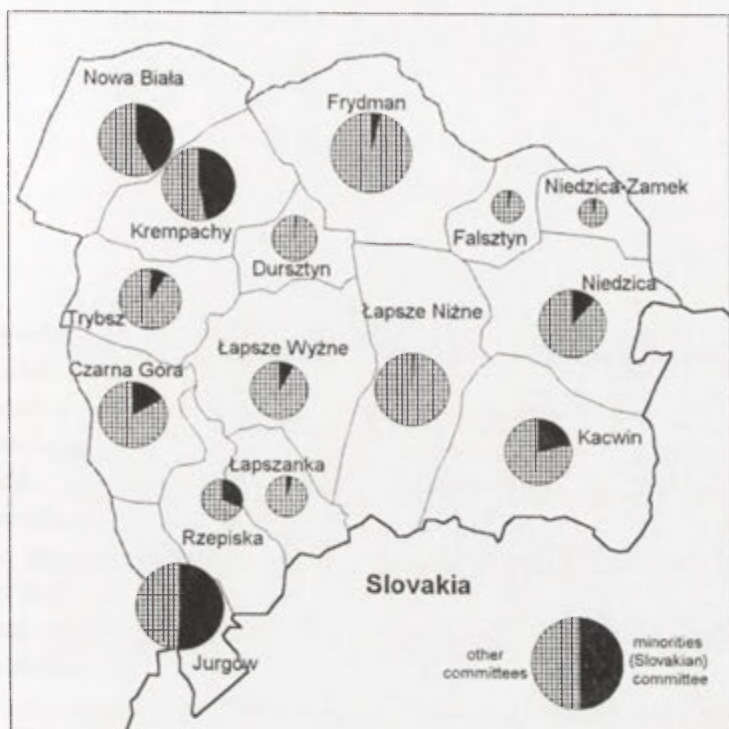
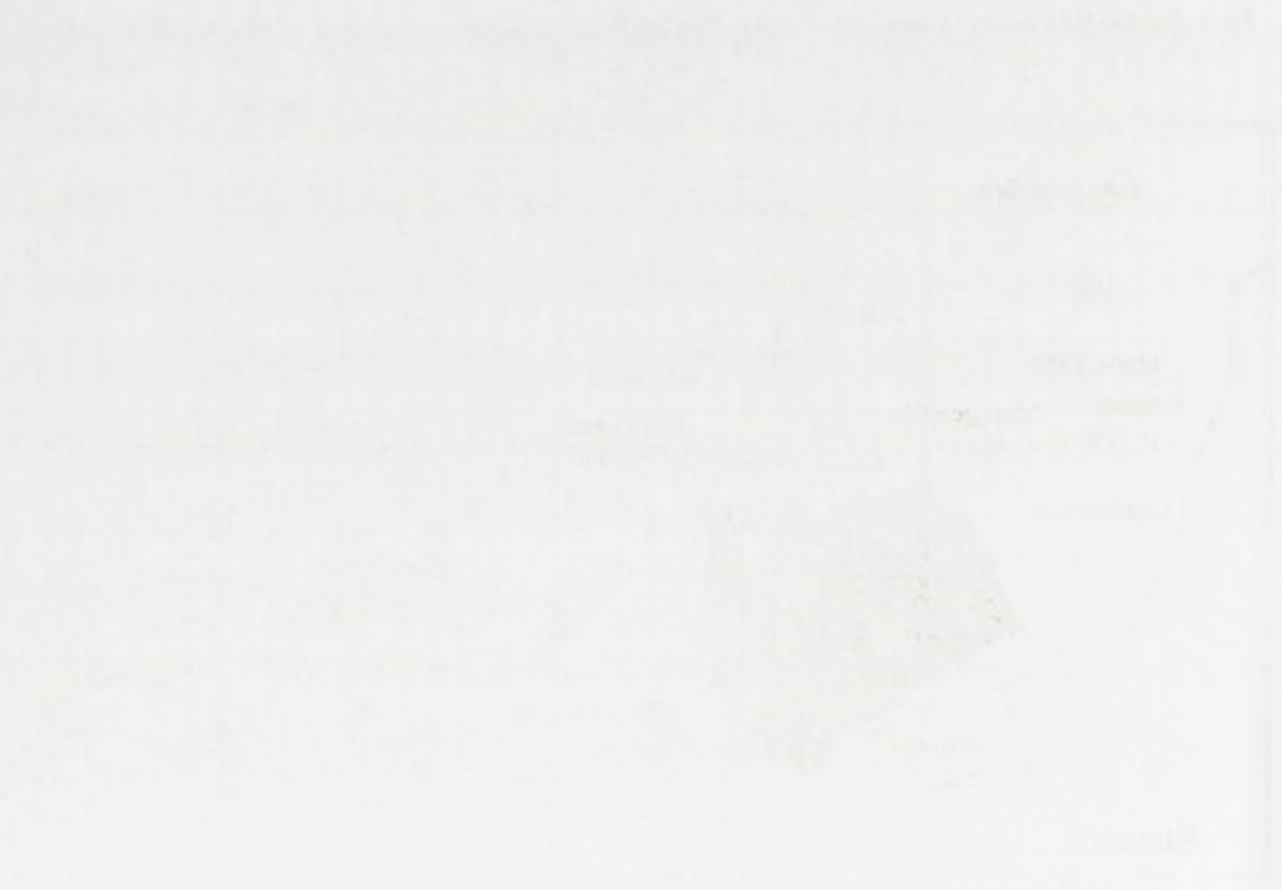


Fig. 5. Support for Electoral Bloc of Minorities in Spisz in 1991



Fig. 6. Support for Electoral Bloc of Minorities in Orawa in 1991



Development of the new tourist space of the Western Carpathian Mts. in the 1990s

Marek Więckowski

The Carpathian Mts., both in Poland and in Slovakia, constitute one of the most important tourist regions of the two countries. Over the decades the Polish and Slovak parts were being developed separately, and separately touristically used. There are many tourist routes – even nowadays – ending at the border, where, therefore, the possibility of getting acknowledged with the territory of the neighbouring country terminates. That is why the cross-border use of the area necessitates the existence of:

- border crossings,
- tourist routes reaching the border crossings,
- tourist routes along the border, accessible for tourists from both countries,
- the appropriately adapted and located accommodation facilities,
- the consistent transport system, including coach and railway lines,
- common, mutually agreed tourist information, and
- the joint tourist offer for the development of international tourism.

It was stated in the Coordinative study of the development of the Polish-Slovak border areas (1993, 1994) that “the main factor of the socio-economic activation of this area is the enormous natural and landscape potential for the development of all kinds of tourist traffic and spa medication”.

Spatial distribution of the accommodation facilities within the Polish-Slovak borderland

The tourist accommodation facilities constitute the fundamental component of the tourist development of the entire area, and thus of the tourist function indicator value. Map 1 shows the spatial differentiation of the value of the tourist functions. The maximum values of 100, as suggested by P. Defert (1960), corresponding to the areas of the fully developed tourist function, characterise within the Polish-Slovak borderland

just three counties: Tatra Mts., Poprad and Bieszczady Mts. Then, there are five counties with quite well developed tourist function (values exceeding 50), namely Nowy Sącz, Cieszyn, Liptovsky Mikulaš, Turcianske Teplice, and Nowy Targ. Despite the similar natural environment, the differences in the degree of development of the tourist function are quite distinct. This function is more developed on the Polish side of the border than on the Slovak one. The highest value on both sides of the border characterises the region of the Tatra Mts. Besides this particular area, high values of the tourist function indicator characterise, on the Polish side, the regions of Bieszczady Mts., Beskid Sądecki Mts., Beskid Żywiecki Mts., Beskid Śląski Mts., and Pieniny Mts.

In the remaining areas the stronger tourist function on the Polish side of the border motivates to the development on the Slovak side of the tourist offer for the one-day tourists, who constitute already now the majority in the general number of the Polish tourists in Slovakia.

Although the significance for the mountain tourism of the accommodation facilities located outside of the proper mountain areas – e.g. in the valleys, bowls, or towns – increases, the mountain refuges still constitute the most stable traditional accommodation basis. They are usually located in the upper parts of the mountains, and are interconnected through the network of tourist routes. These refuges allow for the direct contact with the mountain nature and make possible staying in the mountains from dawn to dusk, and wandering between the refuges, without the necessity of leaving the mountain area.

In terms of the possibility of making the cross-border mountain excursions only these refuges are important, which are located relatively close to the border. The ones located farther from the border (a few hours of marching) may be used only for the accommodation in cases of exploration of the farther parts of the neighbouring country.

Map 2 shows the spatial distribution of the mountain refuges in the meso-regions divided up by the state border. In the zone thus defined there are altogether 88 mountain refuges, of which – 43 on the Polish side, and 45 on the Slovak side. Three of the meso-regions account for almost half of all the refuges (Beskid Żywiecki Mts., High Tatras and Western Tatras). There are only few – or none at all – refuges in the meso-regions, which are not constituted by the mountain areas, like in the Orawa-Nowy Targ Low, in the Spisz-Gubałowskie Foothills, and in the Subtatra Trough.

We should emphasise that Slovak facilities dominate in the Tatra Mts., as well as in Subtatra Trough and in the Spisz-Gubałowskie Foothills. In the Pieniny Mts. there are two refuges on each side of the border, while in the remaining meso-regions Polish facilities dominate.

It is also worth paying attention to the concentration of the proper mountain refuges, whose highest density is observed in the High Tatras (Map 2).

The Tatra Mts. region stands clearly apart in comparison with the remaining areas of the Polish-Slovak borderland. This region dominates in many aspects concerning tourism. It is characterised by the highest tourist function indicator in the entire borderland. In particular, this region has the highest number of hotel and refuge beds, and their highest density. Hence, the role of the Tatra Mts. in cross-border tourist traffic and the establishment of the cross-border links ought to be possibly pronounced.

The areas of the eastern part of the borderland, especially of the Low Beskid Mts., have quite weakly developed accommodation facility infrastructure on both side of the border. In connection with the increasing tourist interest in this part of the Carpathian Mts., an exceptional possibility therefore appears of the joint tourist development of the area. These territories might potentially attract also tourists from outside of Poland and Slovakia.

Spatial distribution of the tourist border crossings

The most important elements in the newly developing tourist space of the Carpathian Mts. are

the border crossings. The attempts aiming at the opening of the tourist crossings lasted very long. Their origins can be dated back to the 1920s and 1930s, when they were motivated then by the wish of making the attractive areas accessible to the citizens of the neighbouring country. The first formal framework was constituted by the cross-border tourist convention, which, however, would not fulfil all the hopes of tourists, associated with the possibility of crossing the border at any place whatsoever. Then, in the 1990s, the intention of implementing the pre-war concept returned. The talks between the Polish and Slovak sides lasted quite long, and their outcome would not satisfy, anyway, the majority of the mountain tourists. Of the initially planned 36 tourist border crossings only 22 were ultimately opened. The sharpest reservations are being voiced with respect to the opening of just one such type of border crossing in the most attractive tourist region – the Tatra Mts.

The tourist border crossings constitute the complement to the generally accessible border crossing system. Their spatial distribution is quite uneven, as shown in Table 1. Even a superficial analysis indicates that the highest density of the tourist border crossings is concentrated in three regions, namely in Babia Mt. Ridge, Pieniny Mts., and in the western part of Beskid Żywiecki Mts. (in the vicinity of the locality of Zwardoń). The tourist crossings lack in the Tatra Mts. (mainly in the Western Tatras), in the sub-tatra lows, and in the Poprad river valley. The crossings are on the average spaced by close to 24 km. This might seem to be quite a significant distance, but if we account for all the border crossings, available to tourists, the average distance between them would go down to 15.1 km.

Of the 22 tourist crossings as many as eight are located in Beskid Żywiecki, and further five in Pieniny Mts. and on their borders with the neighbouring meso-regions. This fact makes also apparent the role of these two areas in the cross border tourism. Besides, it is the consequence of the already developed cross-border ties between the organisations (in this case – the boards of the respective national parks, mainly of the Pieniny Mts.) from the two countries (see Więckowski, 1999).

Table 1. Spatial distribution of the border crossings in the physico-geographical meso-regions¹

Physico-geographical meso-regions	Length of state border in km	%	Tourist border crossings			All border crossings			
			L 1990	L 2002	P	L 1990	P	L 2002	P
Beskid Śląski	10,2	1,9	0	1	10,2	0	-	2	5,1
Beskid Śląski / Beskid Żywiecki ^A	0	0	0	0	-	0	-	1	-
Beskid Żywiecki	99,6	18,9	0	8	12,5	0	-	10	10
Kotlina Orawsko-Nowotarska	32,6	6,2	0	0	0,0	1	32,6	1	32,6
Pog. Spisko-Gubałowskie	10,4	2,0	0	0	0,0	0	-	1	10,4
Rów Podtatrzański	1,4	0,3	0	0	0,0	0	-	0	0,0
Tatry Zachodnie	34,2	6,5	0	0	0,0	0	-	0	0,0
Tatry Wysokie	21,6	4,1	0	1	21,6	1	21,6	2	10,8
Pog. Spisko-Gubałowskie	36,6	6,9	0	1	36,6	0	-	1	36,6
Pogórze / Pieniny ^A	7,7	1,5	0	1	7,7	0	-	2	3,9
Pieniny	23,9	4,5	0	3	8,0	0	-	3	8,0
Pieniny / Beskid. Sądecki ^A	0	0	0	1	-	0	-	1	-
Beskid Sądecki	71,1	13,5	0	1	71,1	2	35,6	3	23,7
Beskid Niski	119,3	22,6	0	3	39,8	1	119,3	5	23,9
Beskid Niski / Bieszczady Zach. ^A	0	0	0	0	-	0	-	1	-
Bieszczady Zachodnie	58,8	11,1	0	2	29,4	0	-	2	29,4
TOTAL	527,4	100,0	x	22	24,0	5	105,5	35	15,1

¹ physico-geographical regions defined after Kondracki (1994); L – number of border crossings, P – distance in km per one border crossing; ^A – borders with the neighbouring meso-regions; own elaboration

The tourist crossings are located within Beskid Żywiecki Mts. mainly on the more attractive peaks, such as Babia Mt., Pilsko, Wielka Racza, and at the more important passes, leading to the connection routes and the more interesting locations on the territory of the neighbouring country. The crossings were situated in Pieniny Mts. at almost all the feasible points. Thus, on the border segment between Sromowce Niżne and the mountain pass Rozdziel, this segment having the length of a bit more than 25 km, five tourist crossings have been opened. This is equivalent to a tourist pass every five kilometres, the density not encountered on other segments of the border. In addition, it was in Pieniny Mts. that the first of the tourist crossings was established. Thus, already in 1996 the border crossing Szczawnica-Leśnica was opened. Since the very first year of functioning this crossing became one of the more important ones on the Polish-Slovak border. This crossing made it possible for the Polish tourists to walk along the so-called Pieniny Road, which goes along the right (Slovak) bank of the Dunajec river, through the

Pieniny gorge. On the other hand, the Slovak tourists were given the chance to visit Szczawnica and the Polish part of the range. It must be added that the crossing serves also the inhabitants of the border-adjacent areas, as the shortest walking road between Szczawnica, Krościenko and Leśnica.

Outside of the Beskid Żywiecki Mts. and High Tatras the tourist crossings were usually located in the relief lows – in the valleys and mountain passes. This is especially visible in Low Beskid and Western Bieszczady Mts., where all the crossings are situated at the passes.

The fact that the lowest number of the tourist border crossings was opened within the Orawa-Nowy Targ Low is quite understandable. This area is little attractive from the point of view of tourism and is perceived as the region, in which there is nothing worth a tourist's attention. Perhaps a joint action of the Polish and Slovak sides would be capable of changing this groundless opinion. This is, then, an important challenge for both sides and the possibility of common taking of decisions

as to the development of tourism within Spisz, Orawa, and Podhale regions.

One might be surprised by the lack of border crossings in Western Tatras and the presence of just one (on the peak of Rysy, the highest elevation in Poland) in the High Tatras. This issue is quite complex. On the one hand, namely, the region of the Tatra Mts., as mentioned earlier, belongs to the most attractive ones in both countries, and it would seem logical to open just there the highest number of the tourist border crossings. On the other hand, though, the anthropogenic pressure on the highly sensitive – which is the case of the Tatras – natural environment is so strong, that the apprehensions with respect to the possibility of destruction by the large numbers of tourists are definitely also justified. These two arguments, which oppose and confront each other for at least a century, are hard to reconcile and consider along: tourism or nature protection? Thus, it was primarily out of the apprehensions related to gaps in protection of nature in the Tatra Mts., and the to the excessive tourist traffic, that the tourist crossings were not opened in the High and Western Tatras. The sole such crossing active within this segment of the border allows for entering the other country at the highest point of the border: the peak of Rysy. The apprehensions associated with the mass tourist traffic would rather not be justified at this particular point. The possibility of crossing the border, though, has also an enormous significance in terms of safety. Until quite recently, namely, even when the weather abruptly changed, and the life hazard appeared, it was not allowed to go down from the peak onto the Slovak side – although just a quarter of an hour of walking from the border there is the Slovak Pod Wahoú refuge.

It is also worth emphasising that the segment of the border between the peak of Rysy and the village of Chochołów is the longest one, over which there is no border crossing. The length of this segment is as much as 55.4 km. We should yet add that the biggest distances between the consecutive tourist border crossings are in the eastern part of the borderland and within the Spisz-Gubałowskie Foothills. Thus, the average distances between the tourist border crossings are biggest in Beskid Sądecki Mts. (71.1 km), Low Beskid (39.8 km), the eastern part of the Spisz-Gubałowskie Foothills (36.6 km), and in Bieszczady Mts. (29.4

km), and, of course, in Western Tatras (where there is no crossing at all).

The opening of the tourist border crossings will facilitate, and perhaps even further activate the mountain cross-border tourism within the Polish-Slovak borderland. A positive expression of the effect of opening the new border crossings is constituted by the drafting of the new segments of the tourist routes, which reach these crossings. The regions, which are best prepared for the development of the cross-border tourism – due to the tourist border crossings – are, first of all, Beskid Żywiecki Mts. and Pieniny Mts.

The analysis of the periods of opening and the accessibility of the tourist border crossings leads to the following conclusions:

- not all of the crossings are open over the whole year; seven of them are open only in the summer season; the other ones – are open outside the season (October through March, or November through May) for a shorter time than in the summer season;
- all of the crossings are accessible for the walking tourists;
- a vast majority of them are also accessible for the bicyclists; there are only five, which cannot be crossed on a bicycle;
- more than half of the crossings (12) are also meant to serve the skier traffic – mainly in Beskid Żywiecki, Pieniny, and Beskid Śląski Mts.; there are ten crossings, through which it is not allowed to pass on skis, including all of those in Bieszczady Mts., and two-thirds in Low Beskid;
- at eight tourist border crossings the traffic is allowed of the wheel-carts, which will undoubtedly contribute to the fuller participation of the invalid persons in the cross-border tourism.

Development of the cross-border network of tourist routes in Polish-Slovak borderland

At the beginning of the 1990s there were in principle no cross-border tourist routes. They could be established only after the opening of the generally accessible border crossings, located on the tourist routes. A more complete formation of the network of tourist routes was possible, though, solely after the opening of the tourist border crossings, which are truly connecting the tourist routes of the two countries. The entire network of

the tourist routes was elaborated and traced in the terrain by the representatives of the two neighbouring countries separately, and its origins ought to be dated back to the end of the 19th century. The effect of such a historical development was the shaping of the route network, which is not consistent, and yet, until the middle of the 1990s the tourists from the neighbouring countries could – officially – not use the routes of the other country. This applied, first of all, to the tourist routes traced along the borderline. Tracing of these routes separately by the Polish and Slovak sides ended with the situation, in which over as much as 169 km, equivalent to more than 32% of the border length, the tourist routes are doubled. This fact contributed, in particular, to the accelerated destruction of the natural environment in the neighbourhood of the border between the two countries. There are two, or sometimes even three parallel paths running along these segments of the border, broadened with time by the tourists.

- As we analyse the distribution of the tourist routes along the state boundary, we can conclude that:
 - the total length of the border segments, along which the tourist routes are traced, is 349.5 km, which is equivalent to more than 66% of the length of the Polish-Slovak border,
 - there are two meso-regions, within which the tourist routes go along the entire length of the border – i.e. in Low Beskid and Western Bieszczady Mts.,
 - besides the two above mentioned meso-regions, the largest shares of the border length, along which the tourist routes have been traced, are encountered in: Pieniny Mts. (94.1%), Beskid Żywiecki Mts. (83.7%), and Western Tatras (66.7%),
 - there are no, at all, tourist routes along the state border in Silesian Beskid, Orawa-Nowy Targ Bowl, and the Subtatran Trough,
 - the parallel Polish and Slovak tourist routes run along the stretch of as much as 169 km (32% of the entire length of the Polish-Slovak boundary),
 - the longest stretches of the doubling routes exist within the Low Beskid (61.1 km, i.e. 51.2% of the length of the border in the meso-region), Beskid Żywiecki (respectively: 46.4 km and 46.6% of the

length), Bieszczady Mts. (31.4 km and 53.4%), and Pieniny Mts. (14.5 km and 60.7%).

Besides the border routes, which are now made accessible to the tourists of both countries, there are a lot of routes, which end up at the border. These routes can become the cross-boundary ones after the opening of the border crossings at the places, at which they reach the border of the state. The number of the tourist routes reaching the state boundary during the 1990s has slightly increased. This was caused by the adjustment of the network of the tourist routes of the two countries to the routes of the neighbours. Such initiatives occurred, of course, in just a couple of places, but their appearance witnesses to the significance of the cross-border co-operation in these regions and of the developing ties. During the 1990s there were altogether additional 13 tourist routes reaching the Polish-Slovak border. The most rapid increase of their number, confirming the proposition of the essence of formation of the cross border ties, took place in Pieniny Mts. (roughly 75%). On each of the two sides of the border three new tourist routes, reaching the state border, were added.

At present (year 2002) the Polish-Slovak boundary is reached by altogether 153 tourist routes, of which 79 from Poland and 74 from Slovakia. Thus, a tourist route reaches the state border on the average every 3.5 km or slightly less. The somewhat bigger number of the tourist routes reaching the border on the Polish side is also reflected in the slightly smaller average distance between them – on the Polish side it amounts to 6.7 km, while on the Slovak side – 7.1 km.

The numbers of the tourist routes reaching the state boundary have the highest values in three regions – Low Beskid (35 routes)¹, Western Tatras (27 routes) and Beskid Żywiecki (27 routes). These meso-regions account altogether for close to 60% of all the routes reaching the Polish-Slovak border.

The highest density of the routes reaching the border on the Slovak side is observed in Western Tatras (on the average – every 2.1 km) and in Pieniny Mts. (4.0 km on the average). On the

¹ On the Polish side the majority of the routes reaching the border constitute the very same route – the blue one. The decision was made of classifying its particular segments as separate ones, since they link the localities situated close to the border with the routes located on the border itself.

Polish side the respective highest densities are observed in Higher Tatras (on the average every 3.1 km), in Western Tatras (on the average every 3.1 km), and in Pieniny Mts. (on the average every 4.0 km). This is – in particular – the evidence for the great tourist attractiveness of these mountains, and especially of their part situated close to the state border.

The thinnest and the least dense networks of the tourist routes reaching the borders are observed in the following meso-regions: the Orawa-Nowy Targ Bowl, the Spisz-Gubałowskie Foothills, and, on the Slovak side additionally Beskid Sądecki (a route every 14.2 km).

The tourist routes are the potential stimulators of the development of mountain tourism. There are five meso-regions at the Polish-Slovak borderland, which are of special significance for the mountain cross-border tourism: High Tatras, Western Tatras, Pieniny, Beskid Żywiecki Mts., and Bieszczady Mts.

Summary

There has been quite an important increase of the joint tourist initiatives in the 1990s. The number of the citizens of the two countries, visiting the other country, increased significantly. New tourist routes were added, 30 border crossings were opened, including 22 meant specially for the tourist traffic.

Yet, the number of the tourist border crossings is still insufficient. They are unevenly distributed. They are best developed in the regions of Pieniny Mts. and Beskid Żywiecki Mts., where also the highest number of the crossings was opened. The nature of Pieniny Mts., the wish of protecting it and making it available influenced the process of establishment of strong ties between the Polish and Slovak sides there. This is an almost model-like example of the cross-border co-operation, where the nature protection is successfully reconciled with the development of tourism.

There are still too few border crossings in Low Beskid, Bieszczady Mts., and, of course, in Tatra Mts. The latter area is a typical example of the dual influence of the natural environment and its perception by the society. It is an attractive area in terms of nature, landscape, and tourism, owing to which anthropogenic pressure is amplified, along with the tourist traffic, while, on the other hand,

there exists a strongly developed need of protecting this area.

The development of the new cross-border ties would certainly be activated and enhanced by the opening of the border-adjacent zone, within which the state border could be crossed at any point.

In the meso-regions, which are crossed by the border, the most important elements of the development serving the cross-border tourism, are concentrated. Side by side with the very border crossings, the network of the tourist routes is exceptionally important. A quite significant weight ought also to be attached to the cross-border transport, allowing for the travelling in the neighbouring country (see Więckowski, 2000). Yet, the decisive significance in this zone should be attributed to the accommodation and the accompanying facilities. It was shown in this report that the role of this sort of infrastructure is high in both countries, with the most pronounced contribution observed in the region of Tatra Mts.

The homogeneous natural environment, divided by the state boundary, creates advantageous conditions for its joint development, promotion, etc. Thus, joint promotion events and tourist fairs are being organised. The exchange of promotion materials, folders, maps, and guidebooks intensifies. In elaboration of many of them both sides are involved. Examples are provided by the elaboration of the album on Pieniny Mts., or of the map of the Cisna Landscape Park. The boards of the National Parks of the Pieniny Mts. on both sides of the border have developed already a couple of years ago a common system of tourist information in the form of poster maps, which are put up in Poland and Slovakia. The contents and reach of these maps were determined together, and they encompass both of the national parks. In Pieniny, as well, the tourist routes are being adapted to the needs of tourists from both countries. New tourist routes are being also established. This area may serve as a model for co-operation, this constituting, as well, the evidence of the quite developed cross-border ties. It is planned that in the eastern part of the area the routes of supra-regional significance, connected with the character of the region, will be jointly determined, so as to attract the potential international tourists.

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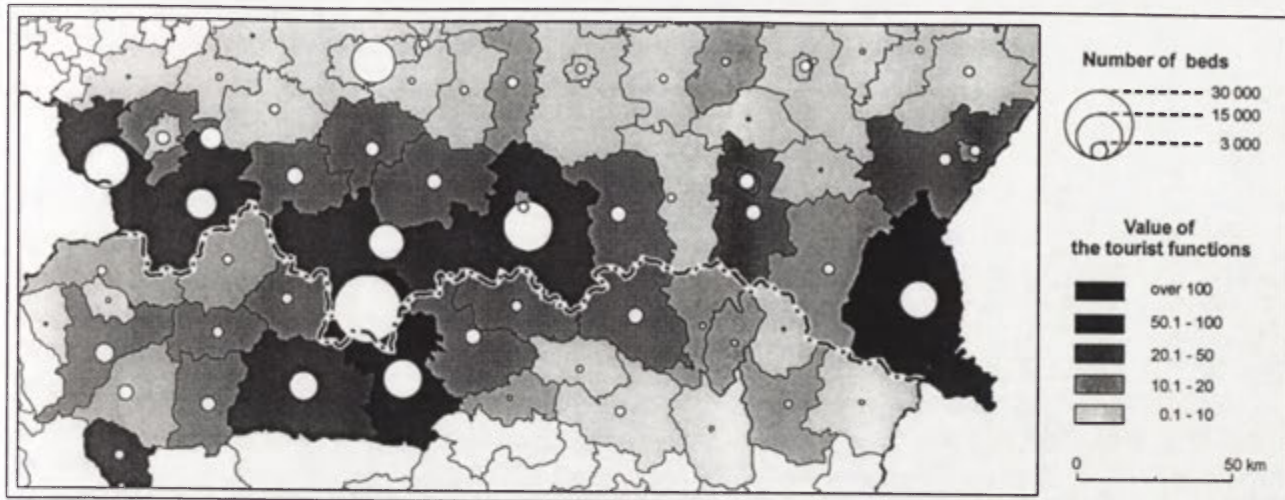
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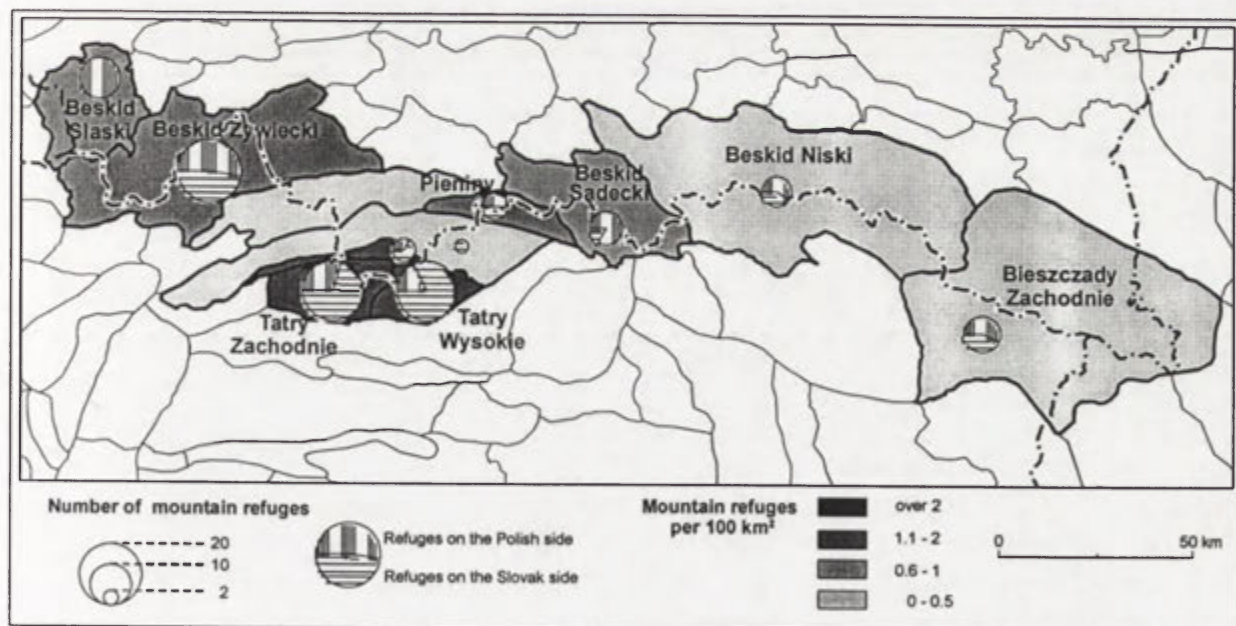
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1. Introduction
2. Methodology
3. Results
4. Discussion
5. Conclusion



Map 1. Tourist function values in the counties of the Polish-Slovak borderland



Map 2. Mountain refuges in the physico-geographical meso-regions of the Polish-Slovak borderland

Administrative divisions in Poland

Piotr Eberhardt

After the military activities had been terminated the territory of Poland was in 1945 divided into 14 voivodship units, namely: Warsaw, Łódź, Lublin, Białystok, Cracow, Kielce, Silesia, Pomerania, Rzeszów, Poznań, Gdańsk, Szczecin, Wrocław, and Olsztyn. Besides this, two towns acquired the status of voivodships (Warsaw and Łódź). Ten of the voivodship seats were located within the area of the pre-war Poland, while four (Olsztyn, Gdańsk, Szczecin and Wrocław) were located in the territories gained after the war (see Table 1).

A distinct majority of the selected voivodship centers had had a long tradition of

being province capitals. This applied to Warsaw, Łódź, Białystok, Kielce, Lublin, Cracow, Katowice, and Poznań, having functioned during the whole interwar period as the capitals of provinces. On the formerly German, regained territories the traditionally significant role was played only by Wrocław, Szczecin and Gdańsk - historical capitals of large well established provinces. Altogether, therefore, eleven voivodship capitals had sufficiently rich technical infrastructure and a tradition allowing to fulfil the role of a province capital.

Table 1. The administrative division of Poland in 1946

No.	Voivodship	Surface area in thousand sq. km	Population number	
			Total (in '000)	per 1 sq.km
1.	Capital city of Warsaw	0.14	478,8	3 396
2.	City of Łódź	0.21	496.9	2 344
3.	Białystok	23.2	940.9	40
4.	Gdańsk	10.7	732.1	68
5.	Kielce	18.1	1 717.9	95
6.	Cracow	15.9	2 133.4	134
7.	Lublin	27.7	1 889.1	68
8.	Łódź	20.3	1 772.4	88
9.	Olsztyn	19.3	3 511.8	18
10.	Pomerania	20.0	1 406.5	70
11.	Poznań	39.2	2 422.1	62
12.	Rzeszów	18.2	1 535.4	84
13.	Szczecin	30.3	892.6	30
14.	Silesia	15.4	2 823.4	184
15.	Warsaw	28.3	2 091.1	74
16.	Wrocław	24.8	1 941.1	778
	POLAND	312.6 ¹	23 930.0 ²	77

¹ Balance of area according to voivodships falls short of 0.9 thousand sq.km

² The military of about 304 thousand were not accounted for in the balance according to voivodships.

Source: *Historia Polski w liczbach (History of Poland in figures)*. Warszawa, 1993.

Directly after the war two new voivodships appeared on the map of Poland, the ones of Bydgoszcz and Rzeszów. In case of Bydgoszcz this was linked with the transfer of the provincial seat from the neighbouring Toruń, which had been in the interwar period the capital of the Pomeranian

province. The decision of transfer of the capital was rational, since Bydgoszcz was a bigger city, located more conveniently, and having relatively rich settlement infrastructure, and so the shift did not entail the necessity of undertaking any bigger investments. On the other hand, a lot of effort and

cost had to be borne in order to bring Rzeszów to the position of a voivodship capital. This particular decision was caused by the changes of boundaries and the loss of Lwów (L'vov, L'viv). Przemyśl, a town from within the same area, was bigger, but in view of its peripheral location it was the centrally positioned Rzeszów that was selected for the capital of the new voivodship.

A similar administrative advance occurred after the war to Olsztyn, located before the war in East Prussia. In spite of the fact that it played in the interwar period the role of capital of a regency, it still was a rather not too big town (50 thousand inhabitants), strictly subordinated to the administrative authorities seated in Królewiec (Königsberg). Given that only the southern part of East Prussia returned to Poland, the centrally located Olsztyn became the unquestioned capital of this region of Poland. It had been traditionally the capital of the historical region of Warmia, and now has become the capital of both Warmia and Masuria.

In relation to the pre-war period the three-tier nature of the administrative system has not changed. The second administrative level was constituted by the powiat (county) units, of whom there were 299 (including 29 urban counties), while the third level was constituted by towns (703 altogether) and rural communes (3006).

As a consequence of the reform carried out in 1950 three new provinces were established on the formerly German territories, namely Opole, Koszalin and Zielona Góra. Out of these three Opole was best prepared to the role of the province capital, having been for a long time the center of Opole Silesia. Formation of the Koszalin and Zielona Góra voivodships was, on the other hand, a debatable decision. Both were rather small towns (smaller than Słupsk and Gorzów Wielkopolski, located, respectively, close by). To bring them to the state allowing fulfilment of the functions of a self-standing province seat required undertaking of a number of infrastructural investment projects.

These plans were to a large extent turned into reality and these two towns, located within a periphery with respect to the largest urban centers of Poland, became the true voivodship capitals. Besides, the five largest towns of the country acquired the status of a voivodship-town (Warsaw, Łódź, Wrocław, Poznań, Cracow).

During the subsequent period the voivodship system was stable. On the other hand, on January 1st, 1955, communes were abolished, and replaced by a very high number of village units, "gromadas" (altogether 8790 of them). Between 1955 and 1970 a constant tendency existed of decreasing the number of village units and increasing the number of counties. Ultimately, the number of counties increased until 1970 to 391 (with 74 urban counties), while the number of village units decreased to 4671. The consecutive decision, which became valid on January 1st, 1973, was to liquidate the village units and replace them again with communes, of whom there were 2365.

The administrative system composed of five large urban centers of voivodship rank, and 17 voivodship units, existed between 1950 and 1975 (see Table 2).

The setting of 17 territorially large voivodships which had functioned for 25 years was characterized by relatively small disproportions in terms of surface areas. Provinces were usually composed of a dozen or so counties. The three-tier system of territorial administration functioned efficiently and effectively. This was the result of a long tradition and existence of an appropriate settlement infrastructure in the towns playing the role of voivodship or county seats.

With political goals in mind the authorities of the communist party liquidated in 1975 the three-tier system and introduced in Poland the two-tier state administrative system. This move involved liquidation of the powiat (county) level and the simultaneous increase of the number of voivodship centers from 17 to 49 (see Table 3).

Table 2. The administrative breakdown of Poland in 1970

No.	Voivodship	Surface area in thousand sq. km	Population number	
			Total (in '000)	per 1 sq.km
1.	Capital city of Warsaw	0.45	1 316	2936
2.	City of Cracov	0.23	589	2542
3.	City of Łódź	0.21	763	3556
4.	City of Poznań	0.22	472	2139
5.	City of Wrocław	0.23	526	2291
6.	Białystok	23.2	1 176	51
7.	Bydgoszcz	20.9	1 914	92
8.	Gdańsk	11.0	1 469	133
9.	Katowice	9.5	3 701	387
10.	Kielce	19.5	1 890	97
11.	Koszalin	18.1	796	44
12.	Cracov	15.6	2 183	142
13.	Lublin	24.8	1 925	77
14.	Łódź	17.1	1 669	98
15.	Olsztyn	21.0	980	46
16.	Opole	9.5	1 059	111
17.	Poznań	27.0	2 193	82
18.	Rzeszów	18.6	1 758	94
19.	Szczecin	12.7	899	70
20.	Warsaw	29.4	2 518	86
21.	Wrocław	19.1	1 977	103
22.	Zielona Góra	14.6	885	61
POLAND		312.6	32 658	104

Source: *Historia Polski w liczbach (History of Poland in figures)*. Warszawa, 1993.

The radical reform of the administrative division of the country was a very costly undertaking. It required preparing 32 urban centers to fulfilment of the role of voivodship capitals. The majority of these newly promoted centers were rather small towns of a marginal regional role. The new province seats were assigned the areas which had never before been gravitating functionally to them. This made it necessary to bear high investment costs on transport and communication infrastructure. The administrative system which emerged was functionally and spatially out of balance. Large magnitude disproportions existed not only among the voivodship centers, but also among the provinces themselves. We can cite here the following example: Katowice voivodship (Upper Silesia) had some 4 million inhabitants, while the voivodship of Chełm - only 250 thousand. Liquidation of the intermediate administrative level constituted previously by poviats (counties) resulted in the situation in which too many commune level units belonged to one province. This made impossible an effective organization and forced to establish the so called

district offices. They were becoming the actual new county organs. The formally existing two-level system was gradually turning into a three-level one. This, however, was taking place in conditions of overlapping competences of the particular levels of the administrative authorities.

As years went by, after a lot of infrastructural investment undertakings had been successfully implemented, the system composed of 49 voivodship units was getting more and more robust, in spite of its obvious shortcomings. The new voivodship seats got a very significant development impulse. The settlement system of Poland was acquiring an increasingly polycentric character. That is why the appearance of the concept of reestablishing the three-tier system, as well as the postulate of liquidating the majority of the voivodship units encountered an opposition from numerous local communities. There was a perfect awareness that losing the rank of a voivodship center by a town and acquisition of the position of a county seat would mean a downgrading, not just in terms of status.

Table 3. The administrative division of Poland in 1990

No.	Voivodship	Surface area in thousand sq. km	Population number	
			Total (in '000)	per 1 sq.km
1.	Capital city of Warsaw	3 788	2 421.6	639
2.	Biała Podlaska	5 348	305.3	57
3.	Białystok	10 055	692.8	69
4.	Bielsko-Biała	3 704	900.2	243
5.	Bydgoszcz	10 349	1 110.8	107
6.	Chełm	3 866	247.2	64
7.	Ciechanów	6 362	428.4	67
8.	Częstochowa	6 182	776.7	126
9.	Elbląg	6 103	478.9	78
10.	Gdańsk	7 394	1431	194
11.	Gorzów	8 484	500.7	59
12.	Jelenia Góra	4 378	517.9	118
13.	Kalisz	6 512	710.8	109
14.	Katowice	6 650	3 988.8	600
15.	Kielce	9 211	1 126.7	122
16.	Konin	5 139	469.2	91
17.	Koszalin	8 470	508.2	60
18.	Cracov	3 254	1 231.6	378
19.	Krosno	5 702	495.0	87
20.	Legnica	4 037	515.8	128
21.	Leszno	4 154	386.8	93
22.	Lublin	6 792	1 016.4	150
23.	Łomża	6 684	346.7	52
24.	Łódź	1 523	1 139.6	748
25.	Nowy Sącz	5 576	697.9	125
26.	Olsztyn	12 327	753.0	61
27.	Opole	8 535	1 018.6	119
28.	Ostrołęka	6 498	397.3	61
29.	Piła	8 205	480.7	59
30.	Piotrków	6 266	642.6	103
31.	Płock	5 117	516.4	101
32.	Poznań	8 151	1 334.1	164
33.	Przemyśl	4 437	406.8	92
34.	Radom	7 294	751.1	103
35.	Rzeszów	4 397	723.7	165
36.	Siedlce	8 499	651.4	77
37.	Sieradz	4 869	408.2	84
38.	Skierniewice	3 960	419.3	106
39.	Słupsk	7 452	413.8	56
40.	Suwałki	10 490	470.6	45
41.	Szczecin	9 981	972.1	97
42.	Tarnobrzeg	6 283	599.1	95
43.	Tarnów	4 151	670.3	161
44.	Toruń	5 348	659.1	123
45.	Wałbrzych	4 168	740.9	178
46.	Włocławek	4 402	429.4	98
47.	Wrocław	6 287	1 128.8	180
48.	Zamość	6 980	490.4	70
49.	Zielona Góra	8 868	660.0	74
POLAND		312 683	38 183.2	122

Source: *Historia Polski w liczbach (History of Poland in figures)*. Warszawa, 1994.

Yet, after the systemic and political transformations which took place following 1990 further maintenance of the small and economically weak voivodship units was becoming anachronistic. The issue was not only in ensuring a higher effectiveness of spatial economy, the international aspects started to play a role as well. Integration at the level of regions within the framework of the European Union required existence of strong and large voivodship-type regions.

In the course of very sharp debates, which exceeded the scholarly community, three variants

were proposed of the ultimate solution to the problem, namely division into 12, 17 and 25 provinces, and the reestablishment of the intermediate county level of about 300 such units. Without going into the details of this violent political debate concerning the number and boundaries of voivodships, which lasted for a couple of years, let us note that the final decision was taken in 1998. The middle variant was selected, according to which 16 voivodship units were created (see Table 4).

Table 4. The administrative division of Poland in 1998

No.	Voivodship	Capital	Surface area in thousand sq. km	Population number	
				Total (in '000)	per 1 sq.km
1.	Dolnośląskie	Wrocław	19.9	2 985.4	150
2.	Kujawsko-pomorskie	Bydgoszcz	18.0	2 098.1	117
3.	Lubelskie	Lublin	25.1	2 242.0	89
4.	Lubuskie	Zielona Góra	14.0	1 020.3	73
5.	Łódzkie	Łódź	18.2	2 672.8	147
6.	Małopolskie	Cracow	15.1	3 206.6	212
7.	Mazowieckie	Warsaw	35.6	5 065.0	142
8.	Opolskie	Opole	9.4	1 091.1	116
9.	Podkarpackie	Rzeszów	17.9	2 117.3	118
10.	Podlaskie	Białystok	20.2	1 223.9	61
11.	Pomorskie	Gdańsk	18.3	2 179.1	119
12.	Śląskie	Katowice	12.3	4 894.2	398
13.	Świętokrzyskie	Kielce	11.7	1 327.9	114
14.	Warmińsko-mazurskie	Olsztyn	24.2	1 460.4	60
15.	Wielkopolskie	Poznań	29.8	3 346.0	112
16.	Zachodniopomorskie	Szczecin	22.9	1 729.8	76
POLAND			312.6	38 659.9	124

Source: *Polska w nowym podziale administracyjnym (Poland in the new administrative division)*. Warszawa, 1998.

In comparison with the previous administrative system, the one recently introduced is better balanced in terms of magnitudes. The proportions between the largest and the smallest voivodships in terms of area are now 3.5:1, while in terms of population - 5:1.

The ultimate result of the reform of the country's administrative division was establishment of the three-tier system composed of 16 voivodships, 308 poviats (including 65 urban counties), and 2486 "gmina" (commune) units. The latter are classified into the so called urban communes (316 units), urban-rural communes (564 units) and rural communes (1606 units). Besides this there are 870 settlement units having the status of towns. On the rural areas of the country, contained within the

communes, there exist 56,803 village units (among which 39,743 are the so called marshall villages). The statistical data presented, referring to various hierarchical levels imply that the settlement network of Poland is with respect to the functional and urban design aspects - and has always been - highly differentiated. That is why the problem of territorial administrative divisions played during the whole of the 20th century an essential role in the life of Polish society.



Fig. 1. Administrative division of Poland in 1946



Fig. 2. Administrative division of Poland in 1950



Fig. 3. Administrative division of Poland in 1975



Fig. 4. Administrative division of Poland in 1999

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PL - ISSN 1429-7132
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