

## Urban colonization network of the coastal regions in a stage of economic transformation

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### Abstract

The present paper describes complex of functions and space structures that combine regional system of settlement in the area of Pomerania. The subjects of the research were two coastal regions Pomorska province and Zachodniopomorska Province, which in different scientific research and publications are referred as Pomerania. The author of the present paper described transforming regional structure of settlement and functional structure of cities during a stage of economic transformation.

**Key words:** cities, coastal regions, functional structure, urbanization, economic transformation

### 1. Introduction

A stage of market and system transformations is a very interesting subject of research for the geographers. According to W. Maik (1997) there are few legal, institutional and economic factors that make the subject very interesting. The stage of market transformations generates different criteria regulating social and settlement systems. The interest in regional problems is an effect of limiting economic support and fast economic growth. A significant factor influencing development of regional settlement systems is an attitude of local authorities towards economic and social life on a regional level. Administrative reforms from 1999 generated new and very important subject of regional politics – regional governments that thanks to their competences might create and implement own visions of regional development.

The present paper describes complex of functions and space structures that combine regional system of settlement in the area of Pomerania. The subjects of the research were two coastal regions Pomorska province and Zachodniopomorska Province, which in different scientific research and publications are referred as Pomerania (Augustynowski 1977). The author of the present paper described transforming regional structure of settlement and functional structure of cities during a stage of economic transformation.

## 2. Structure of regional urban system

The present settlement network of Pomerania has its source in historical conditions. It would be impossible to understand the process of developing sequent levels of settlement without taking a retrospective look at the past of the presented region. The early beginnings of shaping urban network go back to the medieval times. The cities used to be situated in former locations of castles, historical settlements or market settlements, which played a role of production and trade centers of local markets. Those places attracted peasants and craftsmen who exchanged the goods and services there (Leciejewicz 1960).

The majority of historically shaped cities located in the region of Pomerania was established by the end of the 16<sup>th</sup> century (Tab. 1, Fig. 1). In the following three centuries the urban network was increased with only four new cities (Świnoujście, Wejherowo, Miastko and Nowy Dwór Gdański). In the 20<sup>th</sup> century there were established 22 new cities. In most of cases industrialization was the main factor of establishing a city.

Tab. 1 Pomeranian cities according to granting city rights

Specification	Number of cities	Century of granting the city rights			
		Till the 13 <sup>th</sup> century	The 14 <sup>th</sup> -16 <sup>th</sup> century	The 17 <sup>th</sup> -19 <sup>th</sup> century	The 20 <sup>th</sup> century
<i>Pomerania</i>					
Number of cities	103	39	38	4	22
% of total number	100.0	37.9	36.9	3.9	21.4
<i>Pomorskie Province</i>					
Number of cities	42	7	14	3	18
% of total number	100.0	16.7	33.3	7.1	42.9
<i>Zachodnopomorskie Province</i>					
Number of cities	61	32	24	1	4
% of total number	100.0	52.5	39.3	1.6	6.6

Source: Miasta w Polsce, GUS, Warszawa, 1994, the data comes from Statistic Office in Gdańsk and Szczecin

The presented region of Poland is characterized by considerably high level of formal urbanization (Tab. 2). The urban settlement network combine 103 centers of different size and genesis. The cores of the settlement network are two coastal agglomerations: Gdańska and Szczecin. Supplementary centers of the main links combining settlement system of Pomerania are Koszalin and Słupsk that till the end of 1998 used to be the principal place of business of local governments. Other supplementary cities of the regional development centers are the cities that host the principal place of business of district authorities (Fig. 1). As an effect of administrative reform dated January 1<sup>st</sup> 1999 six cities located in the described region (Gdańsk, Gdynia, Koszalin, Słupsk, Sopot, Szczecin) regained the status of city district centers and additional 28 cities became district centers. Świnoujście and Police two cities located in the described area became district centers while Nowogard, Chojna, Miastko, Sztum, Łobez and Tczew lost their

status of district centers and changes their position in administrative hierarchy. In 2002 Łobez and Sztum regained their administrative position and again became district centers. At the present moment there are seven cities granted status of major district centers and 32 cities performing functions of district centers. The following 63 centers combine functions of municipal and rural communities.

Tab. 2 Pomeranian cities according to character of functional domination in 1973 and 2001

Types of Pomeranian cities according to character of functional domination	Pomerania				Pomorskie Province				Zachodniopomorskie Province			
	1973		2001		1973		2001		1973 r.		2001 r.	
	<i>l. b.</i>	%	<i>l. b.</i>	%	<i>l. b.</i>	%	<i>l. b.</i>	%	<i>l. b.</i>	%	<i>l. b.</i>	%
Agriculture (R)	2	2.1	–	–	–	–	–	–	2	3.4	–	–
Agriculture-service (RU)	9	9.4	–	–	1	2.6	–	–	8	13.8	–	–
Production (P)	11	11.5	6	5.8	6	15.8	3	7.1	5	8.6	3	4.9
Production-agriculture (PR)	3	3.1	–	–	1	2.6	–	–	2	3.4	–	–
Production-service (PU)	22	22.9	22	21.4	10	26.3	8	19.0	12	20.7	14	23.0
Service (U)	6	6.3	52	50.5	4	10.5	21	50.0	2	3.4	31	50.8
Service-agriculture (UR)	3	3.1	1	1.0	–	–	1	2.4	3	5.2	–	–
Service-production (UP)	29	30.2	22	21.4	14	36.8	9	21.4	15	25.9	13	21.3
No dominant functions (x)	11	11.5	–	–	2	5.3	–	–	9	15.1	–	–
Total	96	100.0	103	100.0	38	100.0	42	100.0	58	100.0	61	100.0

Source: Statystyczna charakterystyka miast. Funkcje dominujące. GUS, W-wa, 1977. The data comes from Statistic Office in Gdańsk and Szczecin, 2002

Urban settlement network of the described area includes links of various size structures. Considering their structure and number of inhabitants the majority of the group, 75.7% of all cities located in the described area, combine small cities with the total number of inhabitants lower than 20,000 people. However they concentrate only 21.3% of total number of urban population. The cities with population lower than 5,000 people are the majority in the mentioned group. The category of small cities is supplemented by a group of 24 cities with population of 10,000–20,000 people. Almost 90% of cities have status of a district center what means they are provided with well-developed base of supplies (Fig. 2).

Cities with population of 20,000–100,000 people combine considerably significant group in urban structure of the coastal regions. In 2001 population of the mentioned group was 29.2% of total number inhabitants of the described regions. It was comparable to the country average level of population that in the same year was 31.8%. The described

group includes Stargard Szczeciński, szczecinek, Tczew, Starogard Gdański, Chojnice, Lębork and Police that used to be big strong industrial centers. However industrial recession that affected some of them might threaten their future development (Rydz 1994).

It is also important to mention that a group with population of 100,000–200,000 people includes two centers Słupsk and Koszalin, considered in various conceptions of development, significant factors of social and economic progress in Central Pomerania. Unfortunately at the present moment those cities do not play such prominent role as they

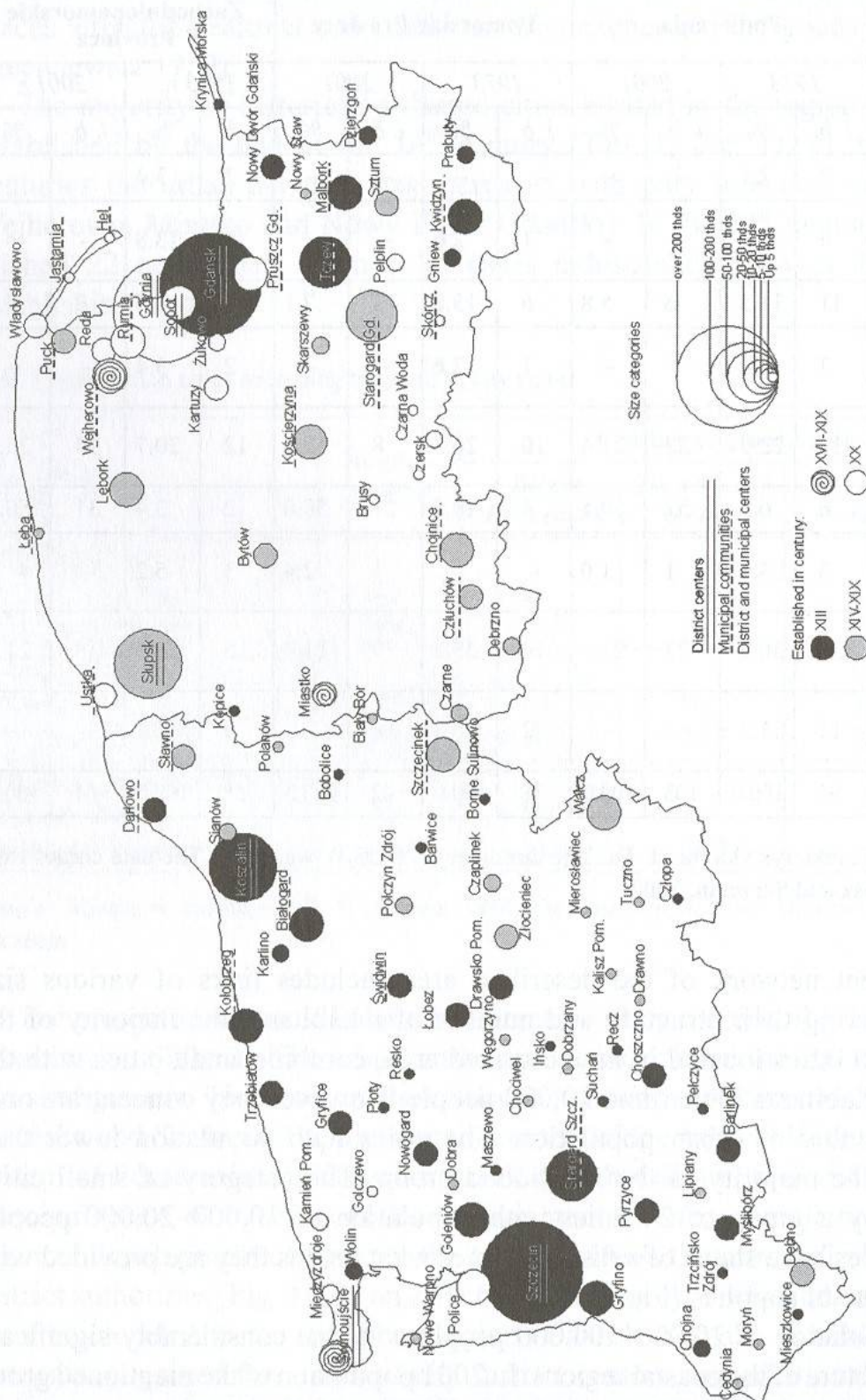


Fig. 1 Urban settlement network of coastal regions in 2001

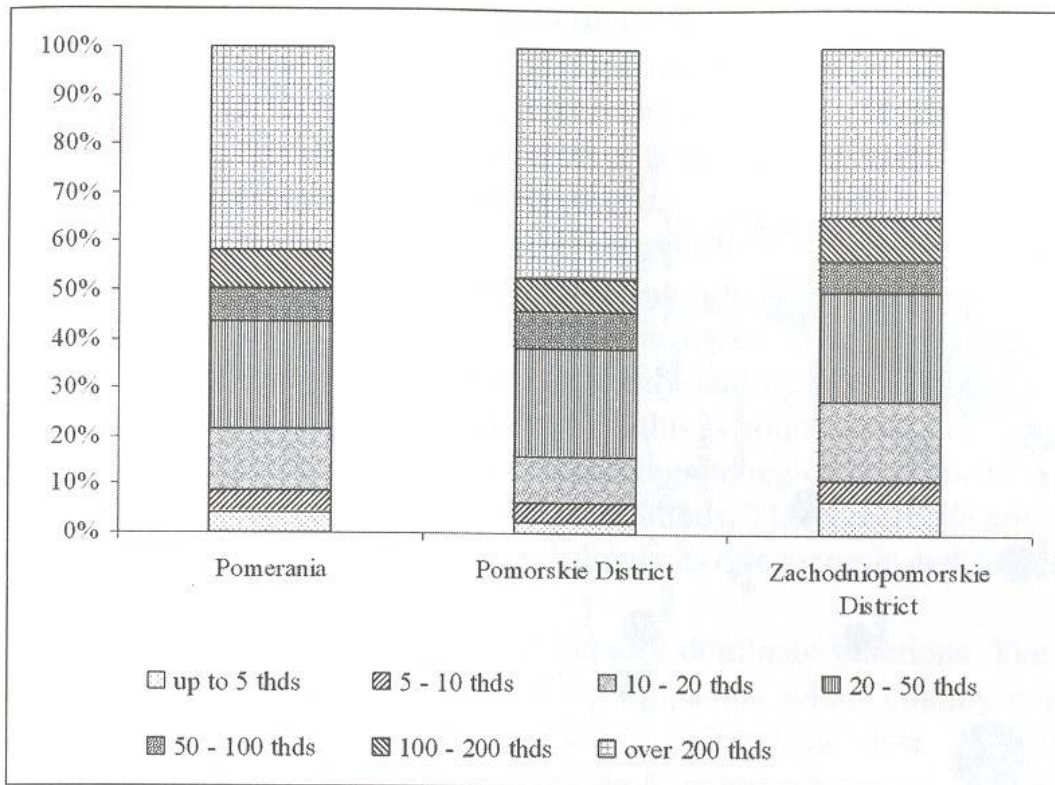


Fig. 2 Structure of urban population acc. to size of a city

used to in the past. The situation has changed radically in case of Słupsk. Nevertheless the population of Słupsk and Koszalin combines 8% of urban population of the described regions. The statistics have improved with 3.8 percentage points when Słupsk population reached the level of inhabitants of over 100,000 people. At the present moment almost 42.0% of urban population of the described regions concentrates in three biggest centers with population over 200,000 people: Gdańsk, Szczecin and Gdynia. This coefficient is much better than the country average in this category, which was 35.3%.

During economic transformation stage (1988–2001) the cities located in described coastal regions increased the number of population with 4.9%. The situation might be connected with their poor economic condition. However the pace of population changes was faster compared to the country average, which was 3.2%. The pace of increasing urban population in different parts of the presented regions depended on a coefficient of dynamics, which was higher in Zachodniopomorskie Province.

### 3. Changes of functional structure of the cities

Economy of modern cities cannot be regarded as a hermetic organism. In order to exist and develop a city must export and import specific goods and services. Complex and versatile character of occupations and professions is basic to classify functional types of the cities. Among numerous options used by geographers, the author of the present paper has chosen functional classification based on economic supply concept. The crucial question in our deliberation is a problem what makes the cities develop their structure and progress. General opinion is that development of urban centers depends on their function what means on their general performance both social and economic considered in a wide aspect of national economy.

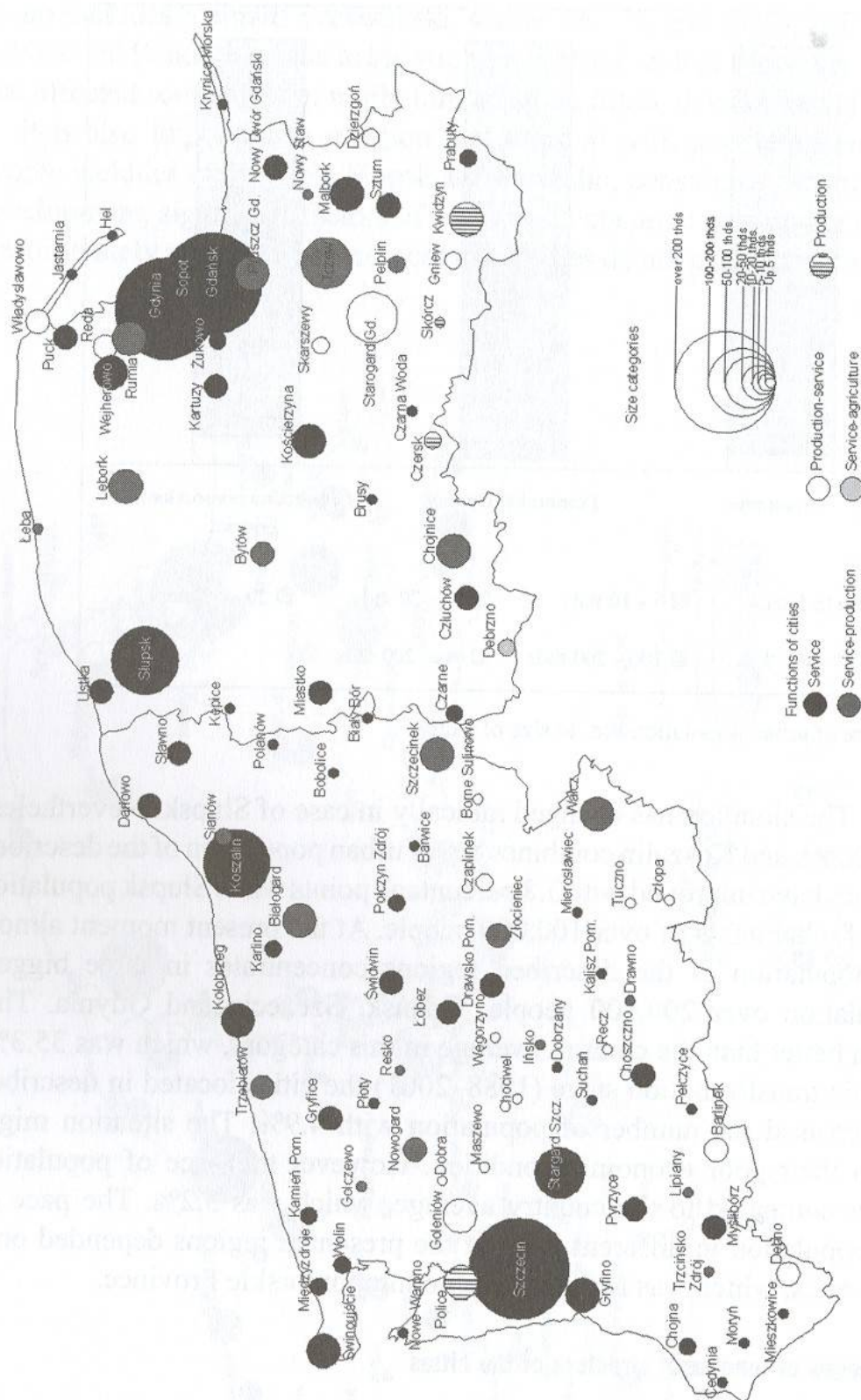


Fig. 3 Functional typology of Pomerania cities in 2001

Activities of all institutions located in a city and people engaged in their structures might be divided into two groups. The first group combine those activities, which satisfy the local demands (not connected with urban structures) and which are connected with providing service in order to meet and satisfy need of urban population. According to K. Dziewoński (1971) the functions fulfilled by the first group have ezogenic character. They have a form of exporting different kinds of goods and services, which are not

provided by the city itself however they are crucial in the process of stable and regular development. The activities performed by this group are the source of income and thus create strong basis to further development. In order to classify ezogenic functions the scientists identified and measured them in particular cities and defined their tendencies to evolve during a stage of economic transformation.

An ezogenic group can be defined by direct or indirect methods. Direct methods are used to define economic base of each city. This kind of research provides satisfactory, reliable and monographic results collected by the means of questionnaires and inquiries. Direct method results concern a single city and cannot be compared with a bigger group. According to M. Jerczyński (1977) this is connected with differences of aims and individual attitude toward problem solving strategies. In order to compare a bigger group of cities the scientist use indirect methods. Those methods are supposed to provide the basic information to analyze differences of economic and social volume of development.

The present publication is an attempt to identify dominant functions. The analysis was based on a number of people employed in companies, which employ over 9 people. This choice was conditioned by availability of statistic data. The functional classification was based on analysis of three basic economic sectors of cities located in the described area in 2001. In order to compare the results of research, the author of the present paper used data provided by M. Jerczyński (1997).

A stage of system transformation connected with transferring into conditions of market economy initiated a considerable change into functional structure of cities located in the area of Pomerania. Lower pace of industrialization, tertiarialization process and downfall of state farming system were reflected in changing functional structures. In 1973–2001 only 13 out of 96 analyzed cities did not change their functions.

According to the results of scientific research the cities located in the coastal regions provided mainly service functions in 2001. Among the researched group of 103 urban centers, the mentioned function is dominant in 52 centers, what is 50.5% of the total researched number. The other 22 centers provided production and service function, 6 centers provided production function, 22 centers performed service and production activities and only in one case a center provided service and agriculture activities (Fig. 3, Tab. 2).

The recent research proves that during a stage of transformation the functions provided by the cities have changes considerably. By the end of the nineties agriculture function was marginalized by service function. In 1973 agriculture function was dominant or co-dominant in 17 (what is 17.7% of the researched group) cities that used to provide service functions to satisfy needs of state farms. Similar situation has been noticed in aspects connected with development of the industry that after fast industrialization and economic activation of numerous small centers located in Pomerania (e.g. Kępice, Czaplinek, Złocieniec, Łobez, Karlino) was the basic factor of their economic progress. Only 2 cities (Karlino, Police) managed to retain the function out of 11 registered in 1973 as strong industrial domination centers. In three cases (Hel, Gryfino, Ustka) the cities became service centers, while 6 others (Gniew, Kępice, Starogard Gdański, Władysławowo, Barlinek) expanded their activities to industrial and service functions or service and industrial functions (Sianów).

In a stage of ongoing transformations the role of service centers became more important. The volume of concentrated social and economic potential has been constantly increased. Service functional type retained health and recreation resorts (Sopot, Połczyn Zdrój, Kamień Pomorski). The described group was enlarged by 32 cities affected with reductions of employment in industry. The largest cities of the mentioned group are Szczecin, Gdańsk, Gdynia, Koszalin and Słupsk. Downfall of collectivized sector in agriculture limited service functions provided to state farms. Changes within the structure of former collectivized sector evolve towards developing non-material services with significant role of administrative services (Kalisz Pomorski, Czarne, Debrzno, Świdwin) and education (Biały Bór, Sztum).

The results of 1973–2001 research on functional type of Pomeranian cities allows the author to conclude that the changes of functional structures concern level of population. The centers with population lower than 10,000 people evolve into direction to generate specialized service sector, foremost in non-material sphere. Industry seems to lose its importance in economic base of individual centers. Significant changes occurred in a category of cities with population over 10,000 people. This group has tendencies to increase a level of specialization in a sphere of non-material service.

#### 4. Conclusions

Social and economic transformation processes caused significant changes into dynamics and structure of urban economy. Production sector and state farming system were the factors, which provoked crisis. The cities with dominant industrial and production functions and servicing state farms were seriously threatened by crisis affecting the basis of their existence. The first symptom of economic regression was decrease of employment in production, construction, transport and collectivized agriculture system.

As an effect of those evolutions functional structure has been transformed. The number of the cities of one-side industrial specialization was decreased. Also the role of industry in local centers was diminished while more efforts were concentrated in order to develop service (trade mainly). The coastal cities developed their tourist and recreation function. However culture, education and health service met some obstacles on their way of development. Market economy, financial problems of institutions supporting the culture and difficult financial situation in local budgets limited cultural development of the cities. Similar difficulties connected with finances affected also education and health service.

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