HOT AND COLD SPOTS IN INCOMES BETWEEN LAKE BALATON AND THE RIVER DRAVA

KERESE Tibor
University of Pécs – Geographical Institute

Abstract. The last period has been the transformation of centre-periphery relations in Central Europe. Somogy County in the western part of the Southern Transdanubian Region has always been an underdeveloped rural area of Hungary with a sparse spatial structure. Its socio-economic indicators are still among the weakest ones. Looking at its settlements, this peripheral area is also differentiated. Regional disparities and polarisation of development are well demonstrated by incomes. The territorial differences of the income were described with the value of the Robin Hood index. Having projected the income categories on a cartogram, a specific spatial pattern appeared. The prominence of the county seat, of Lake Balaton and of several small towns shows their relatively central position, while they are located rather on the edges of the county. On the higher income level several small villages appeared among the towns. Analysing the indicators in the rich and poor deciles of villages, a significant difference was found. This shows the role of social structure besides the role of regional position in the formation of the income gap. The demographical processes may lead to the expanded reproduction of the margins of society, and the further growth of regional differences.


Keywords: regional disparities, income, spatial structure, centre – periphery relations, peripheral area
Cuvinte cheie: disparități regionale, venit, structură spațială, relații centru-periferie, areal periferic.
1. INTRODUCTION

The two decades having passed since the change of regime has been the time of territorial differentiation in Hungary. Although, according to Enyedi (2005), approaching the millennium this process stopped, other researchers still find the growth of territorial differences in regional-, county- and small-regional level. Although with the rapid redistribution of industry the fast development of regional cities resulted in Budapest losing from its former significance, this phenomenon is not decisive in shaping regional differences any more. In the shaping of the spatial structure the tertiary sector has become the dominant one (Nagy, 2006). As a result of globalisation decision-making is concentrated in greater cities, and in the meantime rural areas become functionally forsaken. In this respect the metropolitan position of Budapest is obvious, while down in the country the regional centres are dominant. The role of smaller settlements – including smaller county seats – will rather be only the implementation of decisions made in central places, or even worse: being only subject to them.

In detecting regional differences centre-periphery models attempt to simplify the overly complex system of reality. While Friedmann (1966) was thinking on the level of national economy, Wallerstein (1974) examined the formation of global economy in the dual model. Haggett (1983) interpreted differences on the municipal level and even smaller details of territorial structures. Dicken (1992) found the reason for lasting disparities in dependency, thinking that regional networks had a key role in shaping the spatial structure and the existence of urban regions as core areas in development. Near the millennium the spread of innovations became the most important factor in geographical differentiation (Simmie, 2001).

The gently rolling area between Lake Balaton and the River Drava – which is the western part of the Southern Transdanubian Region – has always been one of the underdeveloped regions of Hungary with a sparse spatial structure. Not even capitalist modernisation and socialist development could change this. Somogy County comprising almost the whole land of Inner- and Outer Somogy is the fourth largest county, but it is also the most sparsely populated. Population density is only half of the national average. Its demography has long been characterised by natural decrease and a mainly negative migration balance. It has the third or fourth lowest Human Development Index (Csíte – Németh, 2007). The urbanization rate is 50%, which is one of the lowest values in Hungary, however, on the basis of their population and infrastructure half of the cities could only be listed among bigger villages only.

On the level of settlements similar characteristics can be observed. Half of the villages are micro-settlements with a decreasing population, providing unfavourable standards of living (Beluszky – Sikos T, 2007). Two-thirds (i.e. 160) of the settlements in Somogy are at a disadvantage, so they are among the recipients of higher regional development benefits (Faluvégi, 2003). This again ranks the country in the fourth place regarding the number and ratio of underdeveloped villages and their population.

Considering the ability to create economic value, Somogy is the fourth weakest again. The per capita GDP is 61.7% of the national value, and only 38.6% of the EU27 average. Moreover, this value has decreased by about 7% compared to the national average and Somogy has fallen back by three positions in the county ranking since 2004. So the development trend of the county shows a fast decline (Nagy, 2005). GDP figures are
published only on the county level, so this indicator cannot be applied on a micro level analysis of regional differences.

Nevertheless, centre-periphery contexts can clearly be shown by income disparities directly determining standards of living, and these are also available on the level of settlements (Rechnitzer, 2008). Beyond the concentration of well-paid jobs in the cities these are also related to the willingness to commute and to the demographic structure. Somogy could only overtake the noted depressed Szabolcs-Szatmár in the per capita personal income after taxing. This, together with the above, makes its peripheral position in the regional and economic structure of Hungary clear (Csatári, 2005). On the level of settlements this rural area, of course, is also differentiated.

Our paper aims to examine the structure of regional income disparities, their causes, and the social factors influencing them.

2. METHODS

In our analysis we have relied on the databases of Central Statistical Office and the income index calculations made for marketing purposes by CID. The 2008 data of the latter were taken into account as a primary indicator, which takes the total spendable per capita income of the population into consideration and includes both wage and profit incomes and social benefits. Many small settlements had very good positions in the ranking, which was highly publicised in the Hungarian press. We compared this with the CSO data referring exclusively to incomes after taxing. The typical indicators of regional differences were calculated on the basis of these data. The income categories of settlements were represented in a cartogram. The social status of micro-settlements with extreme incomes was analysed further by comparing data of the lowest and highest income deciles. The territorial distribution of “rich” and “poor” villages was represented in a separate cartogram. The most typical demographic and economic data were made visible with the use of diagrams. Analysing these, the possible reasons of differences have been identified.

3. RESULTS

The monthly per capita spendable income of the population in the county is 73 thousand forints, which would equal 270 euros calculating with the current 270 forint-euro rate. The average salaries of the settlements range is around 34-107 thousand forints. The value of the income gap between the two extremes is 3.2. Compared to the national value of 5.3, it seems to be a slightly better one, however, this is not the case, because mainly high-income settlements are absent. The Robin Hood index was calculated on the basis of the 245 settlements, and its value was 6.6. This is well below the previously published national values of 15. It should not be forgotten, however, that the initial database contains income received in the form of social benefits, with the aim of decreasing inequalities.

In many respects a similar spatial structure was received from the income (wage and profit) after taxing data of the CSO, however, great differences could be observed on the level of small settlements. The county average here was around 44 thousand, which spread a range 6-64 thousand forints. The income gap here had the value of 10.4. The two series showed a 0.8 correlation with each other, which can be perceived as a difference between the spatial distribution of social benefits and incomes. The difference between the 11.2
value of the Robin Hood index calculated on the basis of incomes and the 6.6 value calculated from the total income shows the significant cohesion effect of social benefits in Hungary.

The spatial distribution of the income level categories of settlements is illustrated in Figure 1. A remarkable feature of the territorial texture is the marginal location of settlements with higher incomes. The prominence of Lake Balaton in the northern area and that of the county seat in the east are clear. The line of small towns and medium-sized villages near the south-western border constitutes another zone with better income levels. There is a further belt with higher incomes along the eastern border between Kaposvár and Siófok. The negative pole lies in the middle of the county like a north-south axis of poverty, where even the towns are far below the average incomes. (They became towns only recently.) The specifically inverse texture of Somogy can partly be explained by its natural boundaries and partly by the marginal position of the main transportation lines. Let us investigate the two major areas in more detail.

**Fig.1.** Per capita net income of settlements in Somogy (edited by the author/ Venitul net pe cap de locuitor în așezările din Somogy (editate de autor))

Key: 1 – above 100%; 2 – 90-100%; 3 – 80-90%; 4 – below 80%; 5 – city / Legenda: 1- peste 100%; 2- 90-100%; 3- 80-90%; 4 – sub 80%; 5 – oraș

Kaposvár is the second largest settlement in the South Transdanubian Region. The urban region around it even stretches into Tolna County in the direction of Dombóvár. Although Kaposvár managed to attract some regional functions, it plays a subordinate role to Pécs. In terms of administrative roles it is the 11th most important in the Hungarian urban network but its economic importance places it only in the 16th position (Csapó, 2008).
Although its situation can be considered good on the basis of its state of development, in dynamic indicators it is among the tail-enders. Together with Salgótarján and Békéscsaba it is the greatest “loser” in Lengyel – Rechnitzer (2000)’s examination of competitiveness. Despite the success propaganda of the city administration it has continued backsliding. This is consistent with the relatively low income, only with Miskolc, Hódmezővásárhely and Salgótarján having lower values among municipal towns. Kaposvár could only overtake Salgótarján in the increase of wages. “Still, Kaposvár is the only county seat, whose population has not decreased!” – says the mayor.

The reason is that as a result of the Hungarian transportation network development Kaposvár lies far from the modern mainlines of traffic, and the poor state of secondary main roads makes it difficult to reach it. The Dombóvár-Gyékényes railway would also need renovations, though its importance is subordinate now, as the once dominant role of railways in the spatial structure has now been strongly reduced. The civilian use of the Taszár military airfield could have been an opportunity for Kaposvár, however, it did not fit either national or regional interests, so it remained only an idea. The M9 is expected to reach the city only by 2015, leaving Kaposvár the last among county seats to be connected to the national highway network. Even so, it is going to be a modern connection only to the east, as the western part, which could promote the connect to EU, is expected to be continued only around 2020. Till then the county has to manage with old, narrow roads with speed limits and slow traffic through populated areas. Potential investors might know this, as they avoid the city, while its internal resources are not sufficient for dynamic development.

The agglomerating zone along the Lake Balaton area with its special tourist roles is in internationally prominent position. The second most important branch of the Šüttor (Saint Andrew's Cross) determining the development of Hungary runs here. It is the Adriatic axis connecting Budapest with Padania (Tóth – Wilhelm – Pirisi – Kiss, 2005). Its significance will grow with the strengthening of the north-eastern Budapest-Kiev-Moscow axis. Due to the M7 motorway and the Zagreb-Budapest railway line it has an outstanding position in transportation geography. Balaton Airport can be quickly reached from most of its area. This is the most dynamically developing zone of the county. In particular Siófok is outstanding: it is relatively near to the capital, and it is in the forefront among medium-sized towns. Virtually, it can be considered to be the dynamical growth pole of the county. As a result of its relatively small size and location its regional “spread” effect covers only the north-eastern part of the county. The high-income belt between Kaposvár and Siófok is partly attributable to it.

The cartogram clearly shows the advantage of towns, most of which have indices above the average. Urban inhabitants comprising 50% of the population own 57% of the income. They earn 11.5% more than the county per capita income. The 50% living in villages have 43% of the income, which is 12% below the average. Urban incomes have also been demonstrated on the basis of their distance from the axis (Fig. 2). The strong prominence of the two largest centres, Siófok and Kaposvár, is clear. Three traditional small towns (Nagyatád, Marcali, Tab) and three towns by Lake Balaton (Fonyód, Balatonföldvár and Zamárdi) are significantly above the average. Around the average we can find the incomes of Balatonboglár and Balatonlelle, the microcentre Barcs on the southern border, as well as the old "school town" Csurgó. Three towns, however, are more than 10% below the county average, which would place them only in the middle of the ranking, even among
villages. (The two towns in central Somogy have only recently become towns.) Among the factors affecting the above size is clear, however, in case of smaller towns the proximity of Lake Balaton can be recognized as an important effect as well.

![Graph of income and distance from Lake Balaton]

**Fig. 2.** Cities in the space of income and distance from Lake Balaton in Somogy (edited by the author)/ Orașele distanțate în venit și spațiu față de lacul Balaton (editat de autor).

Key: 1 – Kaposvár, town with county rank; 2 – Siófok, dynamic development centre; 3 – Lake Balaton and its cities; 4 – Background towns of Lake Balaton; 5 – New micro-towns in the inner periphery; 6 – Old micro-towns on the southwestern outer periphery / Legenda: – Kaposvár, oraș cu funcție județeană; 2 – Siófok, centru de dezvoltare dinamică; 3 – Lake Balaton și cetățenii săi; 4 – orașele secundare de la Lacul Balaton; 5 – noi micro-orașe în periferia interioară; 6 – micro-orașe vechi in sud-vestul periferiei exterioare

Henceforth we are going to deal with microsettlements having extreme values of income. The 245 settlements of Somogy were ranked according to their per capita income. At the lower end of the list the presence of settlement with a population below 1000 seemed natural. However, it is noteworthy that the first six also were tiny villages. Moreover, more than half (i.e. 23) of the 43 settlements that have incomes above the average also belong to this category, which means one tenth of all villages. Besides the 11 towns and 9 larger villages they belong to the “rich” segment of settlements in Somogy County. They were used as the top tenth of villages in our comparative investigations, and they were contrasted with the 23 weakest settlements. Both groups have a population of approx. 10 thousand, which means they account for 3% of the county’s population respectively.

There is a twofold difference between the average income of the two extreme deciles no matter whether we consider the total income or wage and profit incomes. The latter shows a slightly higher standard deviation. Thus, one quarter of the income from the upper
decile should be redistributed to the poor in order to level off disparities, so the value of the partial Robin Hood index calculated on the basis of the 46 settlements is 25. Compared to the county average the “rich” earn nearly 9% better, while the poor earn 40% weaker. Based on the two databases the ratio of wage and profit and social incomes was also calculated. On the county level 37% is added to the net labour and capital income by the society. This value is 80% in the upper decile, and 150 % in the lower one. That is, both extremes are dependent on the benefits of the social network, in case of the upper one almost half of the income, while in case of the lower one much more than half of it comes from benefits.

In terms of the extreme values the villages in Somogy span the whole range of income in the Hungarian settlement network. Patca – the richest village in Somogy – is the 20th on the national list, while the tail-enders, Visnye and Kıkút, are the fifth and the sixth poorest settlements in Hungary. A threefold difference was found between them. The lower decile’s strongest settlement had two-thirds of the income of the upper decile’s weakest settlement, which, interpreted on the level of villages, means a 1.5 percentile value.

The distribution of the 23 richest and poorest villages in the county is illustrated in Figure 3. One third of the rich villages surround Kaposvár, while one-fifth can be found between Kaposvár and Tab. The poor settlements are scattered in the central and south-eastern areas of the county, but there are some on the western border, too. It is interesting that extremes often appear side by side. Regarding their transportation geographical position we can state, that except for two rich settlements by Lake Balaton and two poor ones in north-eastern Somogy most of the two extremes are far from main transportation lines, having only a service road which makes them difficult to reach. On the basis of their socio-economic development (CSO), the bottom decile contains only undeveloped villages receiving higher regional development benefits, but the upper tenth has advanced and urbanised as well as underdeveloped villages.

Social characteristics of villages belonging to the extreme income deciles and showing significant differences are summarized in Figure 4. Difference in the age structure can be highlighted, where the lower decile shows the pyramid form of growing societies, while the top one represents the mushroom shape of decreasing population. This is due to the difference between demographic data. While the upper decile is characterised by strong natural decrease and low external migration, in the lower one natural growth is only slightly negative but there is strong external migration. The gap in natural reproduction is primarily caused by higher birth rates in the lower decile, while part of the migration loss in villages of the upper decile in the vicinity of towns can be substituted by the processes of suburbanisation.
The indices of the lower income class regarding economic activity are much worse off. The high ratio of dependants coupled with a low employment rate is particularly conspicuous. The registered unemployment rate is also higher there. This may be related to the much higher presence of the Roma ethnic group, which – in our experience – is strongly underestimated by official statistics. From this we can conclude the process of ghettoisation in villages with the lowest income levels. It is confirmed by the much weaker values in the level of their educational attainment and in the indices of housing conditions. In poor villages the proportion of primary graduates is prominently high, in the rich ones the proportion of those with a profession is the highest, and those with higher qualifications are in a clearly visible majority. It suggests that apart from regional positions social structure also has a decisive role in regional income disparities.
4. CONCLUSIONS

The examination of incomes established a moderate regional disparity in Somogy. The spatial pattern showed outstanding advantage of the county-seat and the settlements of the Budapest-Padania axis along Lake Balaton. Several small towns show their relatively central position in the rural area of the region. All are located rather on the edges of the county. The youngest towns and the villages in the middle and south-eastern part of the county have low positions in income. Settlements with the lowest incomes are scattered mainly in this area. It is noteworthy that several tiny villages are also present among towns on the upper income level. In the distribution of these villages the vicinity of a centre or the
north-eastern position is mainly characteristic. Sometimes the extremes are side by side. This shows that apart from regional positions social structure also has a decisive role in regional income differences.

The twofold difference between settlements on the two extremes of the scale cannot be said to be high, however, this value has already been compensated by redistribution. The extreme deciles of villages have significant differences in their social indices, which also proves the effect of social structure on income disparities. Its prominent elements are the different age structure, economic activity and the level of educational attainment, which can be enhanced by the processes of suburbanisation in villages in the proximity of towns.

Finally, the significant presence of the Roma ethnic group in the villages of the lower income decile should be emphasized, which in terms of demographic data projects the process of ghettoisation. From this we can conclude the conservation of social extremes which can bring about the drift of poor villages to the periphery of the periphery. The levelling effect of social benefits can only temporarily help, and it will cause the expanded reproduction of the problem. Only the specific development of the area can mean a long-term solution.

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