UNITS OF SPATIAL STRUCTURE AS TOOLS FOR ENFORCING REGIONAL INTERESTS AND FOR REGIONAL DEVELOPMENT

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Theoretical considerations

In the most variosus contexts, the development of the productive forces and the accompanying intensification of the division of labour are, mentioned so often that these concepts are becoming commonplaces. The essence of the process is not considered, the development of the productive forces is conceived in a schematic manner. This suggests that level of development of the productive forces rises from stage A to stage B during a t interval of time, these stages can be represented by straight lines (Fig. 1). In the meantime, the well-known facts that the development of the productiveforces is uneven, the sectors produced by the division of labour have different dynamics and start from various levels of development are not given proper attention. If the previous straight line between the levels of development A and B is replaced by a zig-zag line, part of the latter is located above, other parts below the average line and in this way the true levels of development of the productive forces at the stages A and B are obtained. The peaks or sections above the average line are regarded alpha sectors and those below it beta sectors. A reliable prediction can be made that, after a t interval of time, in the level of development B, the alpha sectors have more chance to function in the future as alpha sectors (to retain their positions), while the beta type sectors will remain below the average level of development. Naturally, changes in structure may take place, but in most of the cases they are induced by some technical-technological rearrangement or result from central intervention.

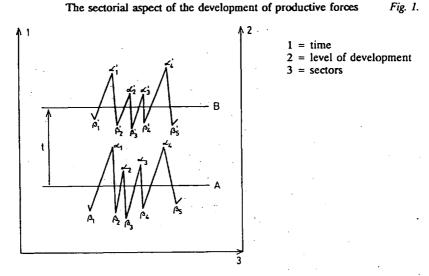
Consequently, acquiring a sectorial viewpoint, it can be claimed that the uneven development among sectors means the preservation of inequalities and also contributes to new inequalities. As a matter of course, the alpha and beta sectors have their own special interests and these interests are dependent on the positions of the sectors in question.

If we consider the unified process of development of the productive forces from not the sectorial but the regional viewpoint, the statement can be made that the alpha type sectors – as a result of the complex physical-economic-historical influence of various factors – concentrate in some part of the socio-economic space and in other areas beta type sectors concentrate (Fig. 2). This concentration is naturally not exclusive, it is a sufficient condition for the formation of these regional types to have predominance of the alpha or the beta sectors. As a result of the different regional allocation of the two types of sector, inequalities and regional differences also emerge in the development of the socio-economic space.

As analogy of the above it should be regarded natural that the development of regions with the concentration of alpha or beta types sectors involves special interests, rooted in the position of the given area.

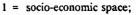
The two approaches as the sectorial and regional aspects of the development of the productive forces are of the same rank. The evolution of both sectorial and regional inequalities are to be regarded objective processes. As a consequence, both aspects

of the development of the productive forces are accompanied by interests springing from the essence of this process. The interests, therfore, can be grasped and described from both sectorial and regional viewpoints and envisaged as objective reality.

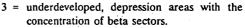


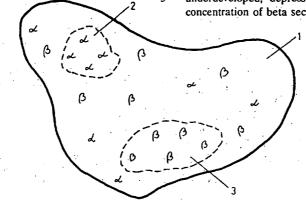
The regional aspect of the development of productive forces

Fig. 2.



2 = developed, innovative area with the concentration of alpha sectors;





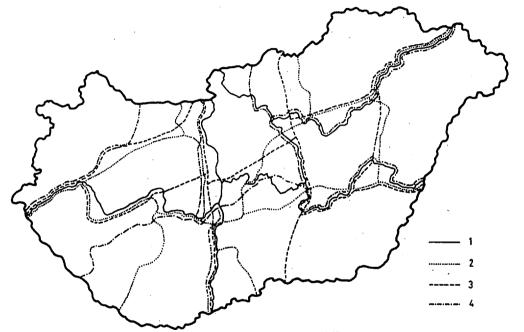
Problems of enforcing regional interests

In East-Central-Europe, where Hungary is situated, the traditional model for the direction of society and economy is the centralized one. The reasons for this are to be found in the special social-historical evolution of the region and have been analysed by historians arriving at convincing conclusions. By today an economic geographical synthesis is also available for this region of Europe. This centralised model served sectorial enforcement of interests and provided it with a proper system of institutions, but could not really provide a solution for the articulation of regional interests. After World War II in the countries of the region whichstepped on the road to socialism borrowing the model or existing socialism from the Soviet Union - the centralised model was adopted. Relying on traditions, this model was intensified in its effects and led to an overwhelming preeminence of the sectorial aspect of the development of the productive forces and the regional approach, the regional aspects of the development of the productive forces was forced into the background, The situation is still characteristic in all of the countries in the region that the sectorial system of institutions is more developed in the direction models centralised to various degrees that the regional system. The latter only functions as an entermediate step of centralised direction instead of the channel to forward regional intrests 'upward'.

Resulting from the development of the last decades, today in Hungary the conditions are somewhat more favourable for the consideration of the regional aspect of the development of the productive forces. among these conditions the intention to decentralise the direction model should be mentioned, which achievedalthrough with interruption and fighting with numerous difficulties certain successes to this date. This is coupled with the process of demokratisation, whith leads, in its consequences, unambiguously to the higher appreciation of regional representation, local society and local power. The third condition is meeting the demand for adequate spatial suh divisions; it seems to lag behind the above, its implementation is slow and a certain resistance has be overcome. At present, the spatial subdivisions in Hungary – disregarding some 'regions' of direction but mostly service sector functions (public health, tansport, post, water management and others) – are only settled for publik administration, which is virtually based on the ancient (thousand-year old) system of counties with some (not negligible, but far from being essential) modifications of boundaries.

The socio-economic space can be subdivided for a certain reason or for a certain purpose. In the first case, when the starting-point is the regional aspect of the development of the productiveforces and the object of investigation is what kind of regional complexes, spatial relationships and units are produced by the process of progress in the productive vorces, these units are separated and delimited, the units of the socio-economic space with objective existence are identified. The best-known effort of this kind is the activity of the Hungarian school of economic rayons, who – borrowing the results of the Soviet economic geography – sougt the foundation of economic subdivisions in Hungary. The most outstanding representatives of this school (*György Markos, Károly Perczel, Sándor Radó, Tivadar Bernát* and *Gyula Krajkó*) prepared the map of economic subdivisions for Hungary in several varieties (*Fig. 3*). The main point in their approach was an existing skeleton of spatial organisation, the reconstruction of a regionalisation developed along with the producive forces, in order to found objective subdivisions into rayons.

Fig. 3.



- 1 = planning economic regions by the National Plan Office;
- 2 = proposal by Károly Perczel;
- 3 = proposal by the Karl Marx University of Economics;
- 4 = proposal by the Department of Economic Geography, József Attila University (Gyula Krajkó)

If regionalisation is investigated from the approach of the purpose, in addition to various systems of subdivision in the individual sectors, in a general sence, two systems are found. One of them is the county system, the first and generally known, based on the requirements of public administration; since the amendment in 1950 disregarding the modifications of some boundaries – it has survived to our days in a virtually unaltered form. Particularly in the 1950s, in accordance with our centralised model of direction, it has acquired – in addition to its administrative functions – numerous functions of economic direction and, thus, the role of the counties in the direction and organisation of economy has grown. Another solution may take into consideration the requirements of regional development. The basic units of the system are the so-called units of spatial structure which resemble, in some respects, to the regional-productional complexes of theschool of rayons, but, at the same time, they also incorporate – in accordance with the suggestions made during the sidcussion about rayons in the 1960s – elements of rationality, making allowance for development considerations to be observed in the future.

The units emerging if spatial divisions are implemented for certain purposes (in a simpler form: between the units of public administration and the potential units of regional development) bring about contradiction. The contradiction is constituted by the circumstance that a regional unit, which is heterogeneous for its economic space and, consequently, has various interests, has an opportunity to enforce its interests through the institution system of the counties on the one hand, bat objective units of spatial structure, which are separated in the wake of the regional division of labour and have their own interests, are deprived of any opportunity to enforce their interests lacking the proper institutions mediating their interests, on the other.

There are many examples for the above. Let us decide on Borsod-Abaúj--Zemplén county, with special regard to its northern parts. During socialist industrialisation this county received considerable funds from central soirces. These financial means were used for the establishment of heavy industry along the Sajó valley, and the for the related infrastructural development, while the northern and north eastern sections of the county (the Cserhát hills, the Bódva valley, the environs of the Aggtelek karst, the Hernád valley, the northern Zemplén Mountains or the Bodrogköz) became backward areas. They did not or hardly receive anything from the mentioned sources; the county was unable to enforce the different interests for development in the heterogeneous region lying in its territory. The consequences are still felt, since Borsod-Abaúj-Zemplén county goes on to receive considerable sums through the central support for the development of backward areas, nowa government programme.

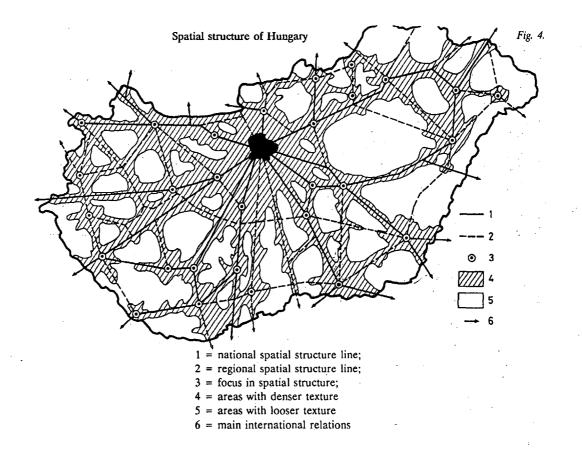
Another contradiction is exemplified by the area of the Sárrét, Great Hungarian Plain. This is anobjective unit of spatial structure with special structural and locational backwardness, which is divided between two counties. However, for certain problems, judged at county level more important than the development of this region, neither of Hajdu – Bihar and Békés counties are in the position to take the responsibility for the problems of the Sárrét and to enforce the related interests.

These contradictions involve sereval consequences. First, the disarticulation of the regional interest can be mentioned with the dismembering of the areas representing it. Enforcement of the interests is assosiated with this dismembered condition, as in this from the institutional system is built upon it. Through the multiple removal the regional interest is lost and cannot be enforced. It is also problematic that the institutional system of enforcement of interests prescribes certain proportions. These proportions derive from previous interest conditions reflecting an earlier stage in the development of the productive forces and they stay in their old conditions even in the new situation, under the altered conditions of interests. The thus established institution system and represented obscure interest conditions do not allow rearrangement following progress and the changes in redistribution and other proportions. The consequences are found serious if certain areas are divided into many portions. A good example is provided by the backward area along the Middle Tisza river, which is divided between the counties Hajdú-Bihar, Szolnok, Heves and Borsod-Abaúj--Zemplén. From the information forwarded by county channels it is not evident that wi are faced with a backward area of county size, since each county osbserves the troubles in a limited area and integrates only these into its own system of the enforcement of interests. Anomalies may occur (and a long list of examples could be cited) and they are manifested in the separation of closely interconnected units of spatial structure (settlements) by counti borders. Szolnok county also provides an 'excellent' example to this phenomenon. Althrough this county includes the town of Tiszafüred, but the neighbouring Abony, maintaining close relations with Tiszafüred economically and socially, lies outseide the county, in Pest county, which is particularly problematic with regard to spatial organisation.

It can also be enumerated among the consequences that the areas along the county border are usually in unfarourable position and represent peripheries. The fact serves to confirm it that most of the areas involved in the recent government programme, aiming at promoting the socio-economic progress in clearly backward areas, are situated either along the national or couty borders. This phenomenon – in knowledge of the circumstances – can easily be explained, but it is also very illogical since it is not necessarythat either the areas along the national border (with mostly socialist countries) or (and even more so) those along the county borders should be preserved in a peripheral position.

Further consequences are the phenomena accompanying cooperation between counties. The inter-county cooperation, althrough it also has institutional forms.(1981), is very loose and only incidental. Its intensity largely depends on personal contacts.

The conflict between spatial divisions and the opportunity to enforce interests involves several other contradictions and sequences which are adverse for the socio-economic progress in the given country, in this case Hungary. Therefore, the proposal is obvious that spatial divisions and the enforcement of interests (including the institutional network of the latter) should be placed on objective foundations, on the spatial organisation which resulted from the development of the productive forces (Fig. 4) and their accordance should be established this way. Such a proposal has important precedents in the history of the discipline and referring to our days.



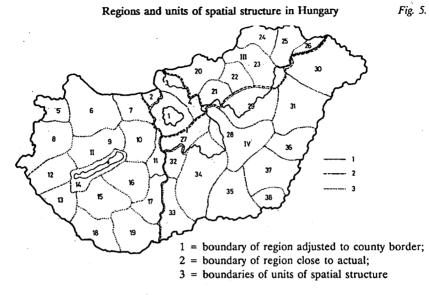
Spatial divisions and enforcement of interests are both of hierarchical nature and have several possible levels. The harmony is desirable and feasible on each level. In contrast to the present situation, the requirement is felt more and more topical and well- founded that the harmony should be established also at the level of regions (macrorayons). At macrolevel the highest level of Gyula Krajkó's taxonomy meets best the requirement formulated by us: it mostly coincides with the physico-geographical divisions of the county, although the boundaries are not indentical. It proposes four regions (the Central region, Transdanubia, North-Hungary and the Great Hungarian Plain) to be identified.

The so-called 'planning economic regions', established by the National Plan Office, grouping the counties for the purposes of long-term planning, do not fulfill the criteria of macr-level regional divisions. First of all, they separate coherent areas and embrace heterogeneous ones. Even more important that they have no institutional system, they could not have become true regions for the reason that they did not receive the right to function as true levels of regonal development policy. As a result, the so-called regional centres (Miskolc, Debrecen. Szeged, Pécs and Győr) could not develop into counterpoles of Budapest, neither true regional centres. They can be condidered more adanced county seats than the other; althrough they have some functions reaching beyond the county border, but they lack the regional function in the organisation and management of economy or in the intellectual field relativelympst developed).

The interests of these macroregions can be easily grasped. Keeping the example of the Great Plain, the interests follow from the special path of progress and its consequences, the relative backwardness, the prolonged counter-preferences of the share from central sources and other circumstances. However, these regional interests could not be articulated in lack of a suitable system of institutions.

At mesolevel the unity of spatial divisions and the enforcement of interests is envisaged on the basis of the units of spatial structure. They are not identical with neither the counties nor the micro and subregions of the economic regionalisationtaxonomy by Gyula Krajkó. The theoretical difference between them is that they have no essential features demanded from economic regions (complexity, specialisation and others), but they are to the purpose, homogeneous for their problems and 'plan tasks' and can be delimited as suitable units for regional development. In a recent synthesis 38 units of spatial structure were identified in Hungary (Fig. 5). Among them, there are examples for those overlapping administrative units and for those sharply differing from them.

At micro-level the settlement, its administrative equivalent, municipality (village or town) represents the lower level of spatial divisions and of the enforcement of interests. Instead of going into details, it is necessary to note that this system is in contradiction with the efforts to establish a two-step administrative system, which is already being criticized from several aspects.



I. Central region

1 = Budapest, 2 = Esztergom, 3 = Vác, 4 = Gödöllő

II. Transdanubia

5 = Sopron, 6 = Győr, 7 = Tatabánya, 8 = Szombathely, 9 = Veszprém, 10 = Székesfehérvár, 11 = Dunaújváros, 12 = Zalaegerszeg, 13 = Nagykanizsa, 14 = Balaton, 15 = Kaposvár, 16 = Tamási, 17 = Szekszárd, 18 = Barcs, 19 = Pécs

III. North-Hungary

20 = Salgótarján, 21 = Gyöngyös, 22 = Eger, 23 = Miskolc, 24 = Aggtelek, 25 = Tokaj, 26 = Bodrogköz

IV. Great Plain

27 = Dabas, 28 = Szolnok, 29 = Tiszafüred, 30 = Nyíregyháza, 31 = Debrecen, 32 = Solt, 33 = Baja, 34 = Kecskemét, 35 = Szeged, 36 = Sárrét, 37 = Békéscsaba, 38 = South-Békés

The use of units of spatial structure in enforcing regional interests and for regional development are illustrated by the brief presentation of subdivisions in the Great Plain.

The units of spatial structure in the Great Hungarian Plain

Our investigations allowed the identification of 12 units of spatial structure for the Great Plain (Fig. 5). They differ in size, populat on number and density, nature and urbanisation level of their centres as well as for their economy, social structure and system of contacts.

Both for area and for population the biggest unit of spatial structure is centred around Nyíregyháza. For the level of economic development it is backward even by Great Plain standards and has numerous problems with structure. The new elements are related to the relatively rapid industrialisation of short tradition. Even today the natural growth of the population is outstanding on national scale; commuting shows a reducing trend but it is still considerable. The skeleton of the spatial structure is the Záhony - Nyíregyháza - Debrecen and the Nyíregyháza - Miskolc axes, supplemented by int regional lines (Nyíregyháza-Mátészalka, Debrecen-Mátészalka and others). For historical reasons, its settlement network differs from that characteristic in the Great Plain: it is much denser and consists of smaller elements. The demographic indicators and the occupational structure point to the relative backwardness of social conditions in a Great Plain comparison. The level of urbanisation is also low: the proportion of the inhabitants of central settlements in total population is only a little over 40 per cent. The number of centres is ll, including six with urban status in the wake of recent declarations. The role of Nyíregyháza is outstanding, while other centres are of relatively low population numner and low hierarchical level. There is an established system of inner relations in the unit of spatial structure, which should be relied on during development. It is to be noted that the rapid urbanisation that took place during the last two decades has resulted in deformations of the structure of centres. When reconstructing the harmony, the circumstances should be regarded, which still incorporate (and will incorporate for a long time) the elements of extensive development.

The Debrecen unit of spatial structure covers the basic area of Hajdú-Bihar county. Primarily because Debrecen, it is a unit of high population density and highest urbanisation proportion in the Great Plain (for the ratio of the inhabitants of central settlements and total population). It is region with advancedagriculture and up-to-date industry, having intensive relations through its centre. The skeleton of spatial structure is built up of the Debrecen- Budapest, the Debrecen-Nyíregyháza and the Debrecen-Miskolc lines. The population is characterised by relatively high natural growth rate and rather advanced occupational restratification, although there are considerable differences in the region in this respect. The settlement system is typical of the Great Plain. It also has 11 central settlements, four out of which are towns. Primarily due to the regional centre, their average level in the hierarchy is high. Part of the centres are being transformed into satellites of Debrecen, while others develop at moderate pace but have balanced structure. Their composition by types is rather varied: ranging from the slowly transforming former market town (Hajdúböszörmény) through the recreation centre (Hajdúszoboszló), the industrial settlement with structural problems (Hadháztéglás), the focus of transport (Püspökladány) and a national centre of agricultural innovation (Nádudvar) to the slowly developing centre of periphery along the national border (Létavértes). Their development should take place with regard to, their diversity, in accordance with Debrecen, in order to relieve the population pressure on the regional centre through the dynamisation of other centres.

The Szolnok unit or spatial structure occupies the territory of the county of the same name, has a population sensity equalling the Great Plain average, but for the proportion of population in central settlements somewhat more urbanised. It shows the typical settlement system of the Great Plain. This unit of spatial tructure lies in the centre of the plain: it maintains exellent contacts with Budapest and along corridors development zones connect the unit with the neighbouring ones. In addicion to its developed agriculture, chemical industry, engineering and some branches of light and food industries are also of natioal importance. During the last two decades the previously stagnant settlements have become the sites of several new plants and institutions. For population and demographic structure the unit is at average level in the Great Plain, out of the ten central settlements seven are towns, but only three (Szolnok, Jászberény and the double setlement Martfű – Tiszaföldvár, which is in special position and has structural problems) can be considered dynamic. Theharmony of the towns of Great Cumania (Nagykunság) could be preserved even in the case of a more dynamic progress. Also to relieve Szolnok, a more even allocation of sources for development would be desirable.

The Kecskemét unit of spatial structure is the second largest and third most populous in the Great Plain.It includes the sand interfluve of Bács-Kiskun county, Nagykőrös, Cegléd and their environs. Its characteristic structural skeleton follows the major lines of transport and ensures good connection with Budapest. The coherence between its elements – in spite of the separating county border – is tradicional and founded on agricultural production and the related food economy. The demographic structure is sharply differentiated regionall; in the settlement system the most characteristic is the highest proportion of tanyas (scattered farmsteads) in the Great Plain. Out of the 11 central settlements six have urban status. Their dynamism and patters show a variable picture. The main lines of their inner relations have formed, this is to be developed further with special regard to the more intensive development of missing centres in areas of looser texture.

In the Szeged unit of spatial organisation, which covers – with insignificant corrections – the territory of Csongrád county, the proportion of inhabitants of central settlements with urban status is highest. The dynamims of this unit of dense texture and favourable place in the spatial stucture of the Great Plain may further develop in the centres industrial activities are varied. Natural growth shows a negative trend for a long time, demographic features and occupational restratification reflect a more advanced stage than usual in the Great Plain. It has an established system of centres; the five towns are supplemented by three non-urban centres. The role of Szeged is similar to that of Debrecen in transforming the neighbouring centres into satellites.

(The most interesting example in this respect is the intensification of the functions of Mórahalom, which became independent from Szeged, and the gradual 'approach' of the previously autonomous Hódmezővásárhely to the regional centre.) The pair of towns Szentes – Csongrád, in a unique position in Hungary, are the other focal point of the unit of spatial structure. To intensify their relationships is a major task in the inner system of the unit and its implementation is possibly promoted, among others, by the rebirth of navigation on the Tisza.

The Békéscsaba unit of spatial structure covers the territory of Békés county. The indicators of urbanisation have relatively high values, the position in spatial structure is good and the broadening of international cooperation promises excellent perspectives. Its economic profile is determided by high-level food economy and some other industries. Natural population growth has turned negative; the demographic parameters are at the average level of the Grrat Plain. Out of the eight central settlements five are of urban status and their hierarchical levels are high. For their dynamism and the blance of structure they show a varied picture: disharmony either results from development or exists without development. The core of spatial pattern in the Mid-Békés settlement assemblage. This assemblage is the focal point of the relation system of the area and neighbouring smaller units of spatial structure.

The *Baja* unit of spatial structure covers the southern Danube valley in Bács--Kiskun county and Bácska. Compared to the above it is unit of less area and population. Agriculture and industry are developed, the demographic structure is balanced, the settlement network comprises settled elements, partly inhabited by national minorities. In the three central settlements less than half of total population live. The main structural element is the Danube, along which and beyond which the contacts are as established as with the county seat.

The identification of the *Solt* unit of spatial structure unit of spacial structure is motivated by the loose outer relatins and their multidirectional character. Viewing from the major Great Plain centres, this area is of peripheral situation, the attraction of Budapest is relatively weak and, in spite of existing contacts, this is also true for Transdanubia. The development of the three minor centres is to be coordinated and the intensification of outer relations may move the area out of this peripheral position. A major tool to this end would be the construction of a new bridge on the Danube in the north of Dunaújváros, which is also demanded by the national spatial pattern.

The *Tiszafüred* unit of spatial structurem relatively extensive and sparsely populated, is the largedst contiguous inner periphery in the Great Hungarian Plain. It is avoided by the linesof spatial organisation, its population pattern reflects an outdated stage in Great Plain comparison, the settlement network is sparse and consists of elements developing slowly. This statement is also valid for the centres – with the exception of Tiszafüred. The quantitative indicator of urbanisation is the lowest here of the typically Great Plain units of spatial structure, below 40 per cent. As a result of delayed progress, the development of the centres could accelerate the growth of the area.

Another major peripheral area of the Great Plain is the Sárrét unit of spatial structure, the position of which is agravated by its location along the national border. The characteristic problems are loose texture and inner relations, two-way (Debrecen and Békéscsaba) outer relations, demographic erosion and the level of cultivation. The centres are recently dynamised small towns or giant villages fighting the troubles of structural disharmony. The development of the area certainly requires central support.

The South-Békés unit of spatial structure is the partly overlapping attraction zone of five centres of low hierarchical level, of generally low rate of development, primarily connected to the Békéscsaba unit of spatial structure, but also having contacts with the Szeged one. It is the school example of the polycentric development model with its developed agriculture, but underdeveloped industry.

The Dabas unit of spatial structure is the transitional zone of the Great Plain towards the Budapest agglomeration. In the area four, non-urban centres are found. With the development and expansion of the Budapest agglomeration, the unit is losing its Great Plain character and its demographic and structural features undergo transformation. This circumstance should be given attention during development. An important tool could be the declatrat onof the urban status of the four dynamically growing centres.

Comparing the system of unitk of spatial organisation and of public administration for the Great Plain - disregarding interegional differences - characteristic differences are revealed. These can be grouped into three main and several subgroups. The first group includes the countis (Csongrád and Szabolcs-Szatmár) where the spatial organisation functions of thecounty seat extend over the entire county. In the case of Szeged this is direct, while in the case of Nyiregyháza - for the Szatmár part - it is enforced through Mátészalka. Thus, the county borders are essentially identical with the boundaries of the units of spatial structure. The second type comprises the counties the seats of which areunable to exert their spatial organisation influense over the whole county. This may go back to several reasons. In the case of Békéscsaba it is the relative backwardness of the county seat, its low dynamism compared to other centres, for Szolnok the unfortunate county boundary, separating Abony, which is in the immediate vicinity of the county seat, and 'integrating' Tiszafüred, which is in great distance and only accessible through detours, in the case of Kecskemét the reason is that Bács-Kiskun county had two centres when it was created and the accelarated development of the county seat of peripheral location could not basically amend it. The third types is only represented by Hajdú-Bihar county (with the exception of the civic area, which 'fell victim' to interregional attraction), but, regarding its weakened attraction over the peripheral areas, the delimitation of backward units of spatial strucure is not real from the side of Debreceb. These units are outlined during the survey of differentes. Out of the four units of backward position, the problems of the two bigger (the Tiszafüred and the Sárrét ones) are more serious, while those of the two smaller (the Solt and the South-ékés units) can be solved by relatively simple tools and low investment. The essential point is, however, that the areas need central support for their development and this is also theinterest of the whole country.

Summarising remarks

In the topic enforcing interests and spatial divisions the approaches of the various disciplines are different and views may also differ within the same discipline. It is a natural demand that the various attitudes and different approaches within a discipline have to be confronted and a proposal (perhaps several varieties) has to be made for decision-makers. (The formulation of such a proposal is naturally only possible in the final stage of a comprehensive research programme.) The changing relationship between science and politics provides more favourable chances than previously that the decision-makers will be able to choose from the sufficiently founded varieties and the contradictions between the socioeconomic spatial divisions and the regional system of enforcing interests will be reduced and, consequently, a more favourable situation will be created for the development of the productive forces in Hungary.

Our reform efforts have a world economy back round, sinister in several respects and cannot be influenced basically. The success of the process, however, depends on the inner conditions, an intricate system, but still better comprehendable. The unity of a spatial system in accordance with the development of the productive forces and of the enforcement of regional interests has a fundamental place.