NEW TASKS OF HUNGARIAN STATISTICS – ON THE WAY TO THE EUROPEAN UNION

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The development of Hungarian statistics has been characterized by continuing revivals since its birth, i.e. since the beginning of *Károly Keleti's* activity. In the course of this, several factors have always been taken into consideration:

– the formation of the requirements of domestic users,
– the international development and new tendencies of statistics.

As early as the end of the last century Hungarian statistics, as regards the requirements of domestic users, laid equal stress on the demands for information of the decision-makers, on the necessity of the development of statistics serving science, and, at the same time, on informing the wide strata of Hungary's population about the economic and social situation of Hungary. It is very important to emphasize that, as there are several countries in the world where statistics used to be strongly subject to decision-makers, in many cases the scientific demands were considered as being of secondary importance and the comprehensive domestic information was often communicated to organizations other than statistical ones.

As regards international outlook, however, I could mention a series of examples in this respect, for Károly Keleti himself put it down that Hungary's small size, geographical position and development made a ground for us to learn from the methods which had been acquired by the statisticians of the richer and more advanced countries than Hungary which had wider outlook than Hungary had, and at the same time to adapt these methods in a creative way.

In these days, with the millenary turn drawing near which means at the same time the realization of our full EU-membership and in a world of globalization it is inevitable that the factors listed above and having several decades of tradition in Hungary should get along but, at the same time, the emphases of the individual elements should be revised and duly modified.

The statistics of Hungary has connections with the international statistical life through several channels. On the one hand we are members of all those official statistical organizations that are making the most important decisions and recommendations relating to the development of statistics, and, on the other hand we are taking part in

bilateral and multilateral comparisons in several fields which can be a lesson to us in defining those spheres of statistics that should faster be developed for the proper preparation of our admission to the European Union.

Reference should be made on what EU-membership means in fact from the point of view of Hungarian statistics. I could also express it so that I have an easy job because, as it is known, the EU has issued questionnaires for almost every field of the economy and society, among them for statistics as well. By these questionnaires it has been recorded how far we have got in the individual spheres, in which tasks we have reached (and I can say it without presumption that in some cases we have exceeded) the level of EU statistics and where it is necessary to accelerate the pace of our closing-up. This, however, would be an approach of the task which simplifies the problem as in this way we formulate the task in a conception expressing what we should do to meet the requirements of the statistical system of the EU. Hungarian statistics, however, has not become accustomed to working exclusively on international order though in this world of globalization this is a quite significant issue. On the basis of many years of experience Hungarian statistics has always adapted the statistical systems corresponding to international requirements so that at the same time it could better serve the domestic data users, therefore it also included initiative research and development work in several fields and we do not wish to give it up either on the approach of the millenary turn.

This paper is to discuss some more details of the following issues:

– priorities of the development of our statistical system,
– short-term tasks,
– further-development of sectoral statistics and the problems thereof,
– the increasing role of functional statistics,
– increased integration in statistics,
– modern instruments of meeting the requirements of domestic and international users,
– increasing the role of statistical science and education.

The first thing that needs to be mentioned is that we consider it a primary task to develop Hungarian statistics in a user-oriented way. At the same time, just as it was also done by our foregoers, we would also like to anticipate the demands by raising issues which make our main users, among them the decision-makers and the scientists to realize what the opportunities are for the facilitation of their work provided by the rich information background of statistics.

Priorities of the development of our statistical system

Following the completion of the EU questionnaires the leading organs and boards of the Central Statistical Office have considered the areas and the methods of examination and analysis on which should be laid greater stress than before in order to further develop statistics, as well as the methods to which less importance might be attached as compared to the former situation. There is no doubt that among the priorities it stands first that the detailed and manifold survey of the Hungarian economy, the exploration of its tendencies, the underlining of the factors having effect on them as well as the analysis of their role are tasks of decisive importance in the present economic situation.

Consequently, the highest priority in economic statistics is the exploration of the tendencies of both the middle-term and the long-term processes as it is the only way to create a reliable basis for the prognoses.

On the other hand one cannot neglect the fact that economy and society develop in a correlated way, in our days it is just this correlation which strikes the Hungarian society most painfully. The economic changes have namely winners and losers, as it is said. Statistics show that the number of the losers has been increasing in the recent period. Consequently, our task is not only to focus interest from various points of view on the examination of the society but to pre-estimate also the effects of the economic changes on the different strata of society based on the tendencies of the former periods. Here emerges another priority to which less importance has been attached in the recent decades of Hungarian statistics. This is the pre-indication (forecast) of the processes. By now a possibility for this has been provided by the fact that the Institute of Economic Analyses and Informatics has been placed under the supervision of the HCSO. By its access to the widest scope of the database this institute has the opportunity to elaborate short-term prognoses and to indicate, besides the effective factors, the tendencies and their expected progress.

Speaking about priorities there are some subjects to which special attention should be paid in this world of globalization. Such areas are the following, only to mention some of them:

– survey of the environmental conditions, development of environmental statistics,

– manifold and detailed external trade analysis,

– more detailed and reliably-based examination than before on the situation and role of the small and medium size enterprises having an increasing importance in the economy,

– besides observing the social situation on the basis of routin indicators, from time to time placing the different strata into limelight. Such strata are young people just starting their career, people leaving work, registered and already unregistered unemployed persons, old-age pensioners, pauperized households.

In addition to the priorities listed above and in the short run prior to them it is needed to elaborate financial statistics in detail in close co-operation with the Ministry of Finance and the National Bank of Hungary. This is necessary not only because of the assumption of international commitments (such data are, namely, regularly collected by the IMF, the OECD and the World Bank) but also because of the fact that it is indispensable for the up-to-date economic management to show the financial situation of our country in detail and from several aspects combined with the examination of the effective factors. This process has already started, the system of financial accounts is compiled on the basis of EU-conform solutions, though in this field there are still new tasks concerning the banking information. These elements are supplemented by the HCSO which provides the data and information needed for the financial accounts and balance sheets of the sector of enterprises. One of the very important elements of the financial information system is the compilation of the financial accounts of the government sector which is for the decision-makers so to say inevitable. I wish to emphasize the close co-operation, the division of labour (not rivalry) between the three organizations concerned: the Central Statistical Office, the Ministry of Finances and the National Bank of Hungary. It is a fact that the National Bank is responsible for monetary

and banking statistics both at international and national level. The contribution of the Central Statistical Office is, however, essential to make the methods formed in this way comply with the data obtained from other sources.

It is well-known that one of the important elements of modern statistics is the balance sheet. In the Hungarian decision-making its inadequacy has led to a series of justified criticism. In respect of the balance sheet the Central Statistical Office has the main role in the formulation of its methodology (based on the demands of the EU, the World Bank and the IMF), for its compilation the Ministry of Finances is responsible. A close co-operation is essential here again because this balance sheet has to be in connection with other elements of economic statistics in order that the tendencies, the changes and the effective factors could be analysed. This is why this task which is by no means a short-term one, is prepared by expert work teams.

Within the priorities mentioned above, special attention should be paid to the information system of the small enterprises. It is generally known that the considerable restructuring of the organization of the economy has gone together with the fact that in the recent 7 to 8 years the number of the small and medium size enterprises has suddenly increased, their performance considerably improved which cannot be shown in reality by the data submitted to the tax office. There is no doubt that the best assistance in this field is supplied by the definition adopted by the EU on 9th February, 1996 which determines the scope of the terminology of small and medium size enterprises. At the same time, besides the EU-definition, we have to take into consideration also the domestic specialities during the further-development of the system of the small enterprises. A "several-legged" information system is needed where the method of enumeration of the organizations with under 10 employees is separated from the survey of organizations with 11 or more employees that can be considered partly small, partly medium size enterprises. In this scope the sampling survey is essential as in a full-scope survey only a few data can be collected on the very large-numbered small and medium size enterprises. At sampling surveys, however, special care must be paid to the supplementing of the data obtained from the database being available in the frame of state administrative procedures, to the authentication of their coverage of reality or, if it is not realized, to the questioning of them, i.e. to their correction.

The other priority whose role has increased in the recent years, though whose content is differing from the previous ones, is the consideration for international migration. Due to its geographical position, now Hungary is already bordering upon the EU and this in itself is attractive for foreign workers while a member-country of the EU bordering upon Hungary is attractive for Hungarian workers. The relating full-scope data, however, cannot be collected even in the legally existing sphere as the available data sources are quite dismembered as regards their structure. This issue is of special importance as in the 1996 demographic surveys of the UN, the exploration of the tendencies of international migration is a high priority. Consequently, our task is to organize the statistics on international migration having a safer basis than the present one to comply with the requirements of both the UN, the EU and the domestic users as well. New tendencies can also be observed in the migration within the country and we have to count on the fact that due to differences between the level of economic and social development of the two areas, labour force is attracted to the western part of the country from the eastern regions.

Thus, the observation of the migration within the country may provide a more reliable basis for the start of the territorial equalization process and for the decision-making which is in this field by all means essential and, at the same time, it shows also the areas of the country in which labour force is to that extent available the utilization of which is necessary from the point of view of the whole society and economy. In fact, it is not only a task of statistics, since the present home address registration system does not ensure adequate data for the reliable further-development of migration statistics.

Within our priority tasks there are already some solved. I would only mention one of them, namely the question of statistical calculableness. In our case it means that the users of our data and information have to know for sure when and which data are available for them so that they could adjust their own work to them. We have made a progress in this respect already this year when we published a calendar schedule from which each data user can get to know at what time and which statistical information is available for him (her) on what he (she) can count later on. The experience of the first some months shows that this work of ours has had a favourable reception.

Short-term tasks

While having taken into consideration which of our new tasks will come into the limelight and will be emphasized during the development process we also formulated on the basis of the comprehensive work of the HCSO's management what short-term problems would be necessary to solve and which the ones are that we are able to solve. I would like to mention the most important ones of them only.

– Further-development of short-term trend indicators. It is generally known that in the EU-member countries the short-term trend indicators have been playing a decisive role for a long time and that other international organizations also build on them. In this respect we have thus a wide range of commitments. Basically, in the short-term trend indicators the most important kinds of data used in the exploration of the macro-economic correlations are included. Such are the indices of national accounts, especially the GDP broken down by quarters and regions. The monetary and fiscal information/data, i.e. those elements of financial statistics that are available on short term constitute another group of the important short-term trend indicators. Like in former years the mid-year data on sales and on the order-book are further on considerable in various sectors of production. In respect of market trends the indicators of employment and unemployment are also decisive. As regards short-term trend indicators, the monthly reports of the HCSO and the new monitoring publications of the HCSO's Institute of Economic Analyses and Informatics play a considerable role in 1997, the most important short-term trends are included in them. It is one of our tasks to improve and, if necessary, to supplement the scope and the content of these indicators, based on the experiences of the first year and on the back-report of the data-users.

– Statistical register and a wider scope thereof: the register of economic organizations is a basic recording which makes possible to ensure the basis for the database of representative surveys. This task again is to be solved in short term, it is in progress at present and it requires quite a lot of work from the staff of the regional offices of the HCSO. Later on it will be possible to initiate data collections of various purposes and cross-sections on the basis of these registers. This, however, requires that we should not only carry out single censuses which is the case at present, but we should also be able to ensure their being up-to-date. The first phase of the task will have been solved by the end of 1997, the provision of their being up-to-date is a continuing task of the next period.

– In recent years the revision and, where needed, the supplementing of external trade statistics have become an emphasized task. It is not mainly about the requirements of the international organizations, though they also lay great stress on its harmony, but it is about our being able to reflect the formation of exports and imports as well as their various factors for the domestic decision-makers. In this field we have traditionally well-solved spheres such as

the examination of the structure of exports and imports by country and by group of countries, the distribution by products and by product groups; the analysis of time series measured in physical measurement and value as well as the analysis of volume data. The new element is, however, the extension of the coverage scope, namely the consideration of the industrial duty free areas which have been observed in external trade statistics not in full scope and not in a harmonized way in recent years. In this field we have had considerable progress already in 1997 but its full harmony with customs statistics is a task to be solved in our days. At the same time it has to be taken into account that the standardization in the EU requires the solution of a new-type task in external trade statistics. The international turnover in the EU member-countries will namely be observed by the INTRASTAT monitoring system. It will be a topical task for us when we already know the exact date of the accession. This is a new type of data collection commitment requiring quite a lot of costs and work but it will have an extremely great number of users thus it will have to meet the requirements of both reliability and accuracy from the very beginning just as it is the case in other fields of statistics. Statistics on external commodity turnover have to be further developed by ensuring the harmony between the national accounts and the balance of payments. This partly brings in spotlight the consideration of freight charges data, partly requires also the consideration of the transactions which cannot be observed in customs statistics. As to the external trade statistical methodology of services we still have tasks which are to be harmonized with the requirements of the European Union.

– Another short-term task is the harmonization of agricultural statistics with the statistical system of such type of the EU. This is the sphere where measures for development have to be taken in several fields in the near future. In respect of the natural data of production Hungarian agricultural statistics can meet 75 to 80 per cent of the data demand of the EU, there are still differences/deviations in the classification system, in statistics reflecting the input and output rates, the costs and income rates of commodities as well as in the agricultural input and output price statistics. Therefore in this sphere we can comply with both the requirements of the EU-conformity and the increasing demands of the domestic users only if we update and supplement the economic register created on the basis of the latest survey carried out in 1994 on the economic structure of agriculture. This work will naturally be done by involving the experts of the Ministry concerned. At the same time, it is an important task to be solved already in 1998 to state the normative gross value added at commodity and activity level in the agriculture for which the application of the agricultural information system of accountancy known in the EU member-countries is needed. The domestic network for this purpose is being created whose results we can only show for the first time next year. In order to disclose the situation, the role, the present and future importance of the agriculture in Hungary for the decision-makers in a more detailed way it is indispensable to create the system of agricultural accounts.

– In the short-term tasks the further-development of the consumer price statistics having a tradition in Hungary and a good reputation abroad is also included. The methodological supervision of the consumer price index is a regular task of the Hungarian Central Statistical Office, its harmonization with the EU and with the preparation of the Monetary Union has started this year. In this respect it is the most important thing to calculate compatible indices relating to an optional period starting from the representative items and their detailed aggregated groups. For this we have to change-over to the practice of fix-base index calculation which better complies with the new requirements. It is another significant task to establish an adequate method for the handling of prices missing from those recorded, i.e. the replacement of the missing price data should be regular and systematic. We have to further-develop the methodology of the consumer price index in harmony with household statistics: on one hand the number of representative items should be reduced, on the other hand the coverage scope should be enlarged, the estimation of weight should be updated. In view of this work we will use the data of the retail trade census as well.

All these tasks which I call “short-term tasks” naturally require continuous updating and, if necessary, modernization.

Further-development of sectoral statistics and its related problems

I have already mentioned previously the development of agricultural statistics which is one of the high-priority elements of EU-harmonization and, at the same time, of the compliance with the increasing requirements of the domestic agricultural statistics.

Besides the traditional methods of industrial statistics we have tasks for further development in this field as well: these serve first of all the adaptation to the statistical

requirements of the EU. The scope of indicators needed for the full harmonization should already be created this year including the adequate integrated questionnaires, the establishments should be selected and the pilot survey prepared whose execution takes place in the next year. New elements are needed to be applied in the calculation of the volume index of industrial production and of the industrial producer price index, first of all on the basis of EUROSTAT requirements.

In industrial commodity statistics the modification of the unit of observation is the main task. In this field a pilot survey will be carried out to lay the foundation of the examination of establishments and activities in 1997. The EU-regulations, the so-called PRODCOM have specified different indicators for the measurement of production by commodity, namely in respect of the realized production, the full cross-section production and the production for realization, respectively. The Hungarian annual commodity statistics complies with these requirements but, in the case of mid-year statistics, modifications are needed, it will partly be a task to solve them this year, partly in the next year. The coverage scope should also be adapted to EUROSTAT requirements according to which the data of all organizations with more than 20 employees should be enumerated and data should be collected on the enterprises representing 90 per cent of the extent of the national production. The present Hungarian industrial commodity statistics comply only partly with this requirement. An important factor of the further-development of industrial statistics is the renewal of the examination of productivity and its effective factors which has been a neglected task in the recent years though in Hungary it has several decades of tradition. In order that the domestic industrial statistics should ever better comply with European requirements, it is reasonable to carry out international comparisons in this field as well.

In construction statistics again the mid-year indicator system has to be adjusted to the EU-requirements in fact on similar principle as in the case of industrial statistics. In this field, however, there are other factors as well such as the organization of collection of construction permits from the local governments and the ensurance of the infor-mation relating to the costs of new dwellings. These are tasks for this year and for 1998. Within sectoral statistics the enumeration of services has an increasing role because in our days an ever growing proportion of the GDP is produced by the service sector 0and the statistical observation of this field does not cover yet the whole activity. Though this is the case in the majority of other countries, too, we must not resign ourselves to this because in this relation there are a lot of estimations within the frame of the System of National Accounts (SNA). Therefore we have to consider on which type of statistical observations we could base the future data relating to services. It is necessary for example to modernize the mid-year observation of road transport e.g. it is necessary as we are a transit country and this is why the role of this activity cannot be neglected. The first phase of this work will be finished in the autumn of 1997. The new method will already comply with EUROSTAT's "Harmonized Road Transport Statistics" project.

Increasing role of functional statistics

The globalization of the world and the economy in it is by no means banality but it needs a new-type approach of the tasks of statistical services. The System of National

Accounts has had a considerable integrating role in statistics for decades, this role, however, is suddenly growing just because of the world`s globalization. The increase does not only mean at all that new type indicators should be calculated but it means first of all that within the frame of the system of national accounts the sectoral and thematical statistics should be developed in harmony and, which is very important, in the national economic surveys the importance of the satellite balances is growing. It is true that in this field we have some decades of advantages as compared to the transition countries similar to us, but as compared to the developed regions of the world we have arrears as well.

The above-mentioned development of macro-statistical systems, among others the renewal of the information systems of the state household, the further-development of the methods of the international balance of payments require the national accounts being adjusted to these. Besides these, perhaps still prior to these, it is extremely important that the results of the economic activities should be presented by the method of the GDP for the total of the country annually and quarterly as well as by territories. We have successes in this respect but the further-development is just as much important. The formation of real flows has to be equally shown by detailed analysis of the individual activities and commodity groups from the side of the relations in the utilization of resources that has to strengthen the integrating role of the System of National Accounts. It might seem to the reader that I speak about the internal tasks of the HCSO because it is unquestionable that this is of primary importance. Sectoral statistics, often developing independently, run parallel, side by side and they do not always comply with the requirements of the development of the System of National Accounts. No matter how much we appreciate the fact that there are new elements in the individual sectoral statistics, compliance with the System of National Accounts is an absolutly necessary task.

For this purpose we intend to compile the new input-output table for 1998 which will be built up partly on the former basis (i.e. the analysis of time series can be continued), partly by using the methods complying with international experiences. This work will be started in 1999 and the new table will probably be issued by the millenary turn.

Within the main items of the SNA the further-development of the information system of foreign investments is of great importance which is mainly a task of the banks but it can hardly be solved without the assistance of the HCSO. It is of the same importance to build in the data of statistics on securities to the balance of payments which imposes again a primary commitment on the National Bank of Hungary but on the HCSO as well in its capacity of a “co-author”.

In the System of National Accounts the accounts of financial operations, the account of reappraisal and the financial stock accounts have an important role. They require an extensive participation of all the three institutions concerned and a considerable compliance with the international requirements, first of all to those of the IMF.

At the functional classification of the consumption of households it is very important to apply international recommendations. We will start it already in 1997 and we wish to change over continuously to the system applied in the international practice.

In all countries, in the transition countries just like in Hungary as well, the proportion of informal activities is considerable. Their estimation in the frame of the GDP cannot be solved by the usual statistical methods thus here it is necessary to use new methods. In

1997-1998 we wish to try several methods, among them also the Italian method, for the modernization of the estimation of the hidden economy.

Within the framework of the SNA it is an important task to make preparations for the various satellite balance sheets. Within these, the balance sheets of environmental statistics, health and education may have a decisive role. In this respect we are still in the preparatory-experimental phase. We have to see, however, that the evaluation of the SNA, the compliance with the requirements of the data-users, among them mainly the prognosticators and scientific researchers allot the Hungarian statistical service enormous tasks in this field as well. I would like to make it perfectly clear that this is not a partial task of a single department of the HCSO but it is the task of the entire statistical service also including the regional apparatus/staff of the HCSO which acts partly as outside workers partly as data-users and analysers.

Environmental statistics can be classified as functional statistics which equally has economic statistical elements and social statistical elements. We started to create the elements of environmental statistics in Hungary in the 1980s, among the first ones in Europe. Thus the foundations exist. Data collections are carried out within various frames partly by the HCSO, partly by the Ministries concerned. Therefore the first step towards the establishment of an EU-conform environmental information system also respecting the domestic requirements is the auditing of the data collections and registers originating from different sources in respect of the fact to what extent they correspond to the requirements of the harmonized environmental statistics. Within the framework of this auditing we wish to point out the methodological differences between the various data sources within the country and their extent of compliance with the OECD and EU system of requirements. The scope of data sources originating from the HCSO and from outside of it which is needed for the operation of a suitable database can be stated, the methodology integrated and, in individual cases, elaborated only after this full auditing.

In connection with the up-to-date development of environmental statistics the Statistical Committee of the Hungarian Academy of Sciences will hold an international conference in 1998 in order to learn the related experiences of the most developed areas and best experts of the world and to compare them with the situation analysis. As the situation analysis will be completed at the end of 1997, the 1998 conference will enable the experts of the statistical service to take the opinion of the foreign experts into consideration at the formation of the new methods and at the standardization of the existing ones. The final goal is the creation of an environmental statistical satellite balance sheet, perhaps balance sheets conforming with the System of National Accounts. It can be started, however, only in the possession of an adequate database.

Another very important field of the development of Hungarian statistics is the further-development of the information basis and analysis of regional statistics on a modern basis. This requires that besides the existing regular regional publications, the data supply of regional statistics and the settlement statistical database system of the HCSO, within the frame of non-regular dissemination we should publish analyses concerning settlement networks, small-areas or dealing with factual subjects and also methodological studies, if necessary.

The co-operation between the border regions is a task of the near future for which we also have former background materials. It is an important task of Hungarian statistics to strengthen this co-operation and to adjust it to the relation system of the Euro-regions. Our initiatives in this field seem to have a favourable reception on the other side of the border.

The HCSO has made the first steps also towards the application of the geographical informatics system, and together with several external firms, we have also created an administrative database for the geographical informatics system.

In the regional data collection the representative sampling methods have a considerable part. On regional level the data collection network and the circle of the observers are also available. It is unquestionable, however, that reliable regional data can only be obtained if the representative survey consists of suitably selected samples of acceptable size that in many cases requires the increase of the sampling unit (e.g. in family budget statistics or in consumption statistics).

It is our important task to organize regular up-to-date labour cost surveys in relation to which the 1992 EUROSTAT recommendations serve as a starting point. The work has started, the first questionnaire was successful. We have taken over the methods of updating from our Dutch colleagues. We apply these methods in the annual calculation of labour costs.

Increased integration in statistics

In this paper I have mentioned several times the necessity of integration in statistics indicating that it is the integrating function of the System of National Accounts that has to prevail. In this chapter I am going to deal with the conditions thereof.

The System of National Accounts seemingly has only to integrate the value data and the volume data calculated from them by using the corresponding price indices. In reality, however, it is about much more than that, because for the information of value data it is also by all means necessary that the harmony in contents, classification and methodology should exist even between the data indicated in physical unit of measure. In the overwhelming majority of cases, Hungarian statistics comply with this requirement now, but there are still some “blank spots”.

I deem it very important that integration should prevail not only separately within economic statistics and within social statistics but also between these seemingly separating statistical information groups. Only a single example for this is the following: labour productivity data are calculated, analysed in time series and compared internationally everywhere in the world. The minimal requirement is only the harmony of the input-output volume data indicated in the numerator and the data of employment or time of input indicated in the denominator, they should relate to identical scope, to enterprises of identically defined sizes, and the period and method of the observation has to be identical. Today this needs some kind of “soft tuning”, especially if we wish to compare not only the temporal changes and regional deviations in the labour productivity but we also wish to examine in detail the factors influencing the formation of labour productivity.

I have chosen this example because in recent years in Hungarian economy the labour productivity has considerably increased in the industry and construction. In our days,

however, we hardly examine their effective factors because it still requires the above-mentioned soft-tuning.

The increased integration has also a part in the fact that the time series disclosed in the HCSO's publications should generally relate to identical periods, in case of retrospection there should only be deviances that are due to and motivated by the character of the given area and which are not autotelic. Let us have an example also for this: in case of the regular monthly or quarterly data collections it is not the same where we draw the line of the enterprises observed, at which staff number category, shall we say at 20 employees, at 50 or just at 10. In this respect the EU regulations prevail but I think that the domestic specialities should also be taken into account if we decide to harmonize the staff number limit of the economic units observed.

Integration also means that the representative surveys have to take place harmonized with each other i.e. in a way that the representative samples of the different scopes of activity and sectors could be analysed together and that all important statistical conditions of harmonizability should be ensured (not neglecting the methodological conditions of sampling).

Integration within statistics, however, does not remain inside the buildings of the HCSO, it reaches far beyond them, it includes the statistical surveys as a whole carried out in Hungary. This complies with the provisions of the Act of Statistics as well as with the practice pursued by the National Statistical Council. I think this is the very organization perhaps one of the most important tasks of which is to exercise control on integration, including exploration of probable impediments and the ensuring of their removal.

It is to be taken into consideration, however, that there are conflicting interests here which often appear in form of ministerial lobbies but in some cases they represent the presumptive or real interests of the individual expert groups within the "family of statistics". The integrator function requires consistent activity of the management of the HCSO, consequently it is an integral part of my work as well.

Up-to-date means in compliance with foreign users' requirements

Nowadays, when electronics gains ground extremely fast in every field of the economic, the social and the every-day life, statistics must not lag behind either. It is generally known that a considerable part of our data has appeared in Internet in this way becoming available quite fast for a relatively large number of the users. This process has to be improved in the future, as the network itself will be enlarged and the number of users increased and not only with governmental organizations but also with scientific institutions, moreover with individual researchers as well. To the supply of such services statistics has to be adapted and prepared very fast, moreover I would say that in some cases it has also to create demands for them. Consequently, we have to reconsider what proportion of the statistical data, analyses and data publication should be supplied in computerized form for which circles the overwhelming majority of the aggregated data can be available on-line, (it cannot be about individual data, because they are limited by law) and which is the circle that further needs the traditional printed and multiplied publications.

Nowadays we cannot use exclusively one of the means but these have to be operated parallelly as the users's demands undergo a change and the professional background of the users is not identical either.

If, however, we wish to have a leading role even in this field, we have to make preparations for the fact that the statistical information system should be competitive within the country; it should be available for all those who have no access to individual data but who can obtain them in some kind of an aggregated form; it should meet the demands of the various research institutes (not depending on the fact if these operate under the supervision of the HCSO or other ministries) and, at the same time, it has to meet the demands of the media, i.e. those of the written and electronic press as well both on-line and in the traditional way. The HCSO has started this work in due time, we have no delay but there are a lot of things we should learn from our more advanced and often wealthier partners. There is no doubt that in the transition period when two kinds of ways of publication exist beside each other, these mean additional work for the staff of the HCSO but we have to accept it, however, in order to be able to meet the requirements of the most different strata of data-users.

In respect of modern informatics the HCSO is not only a server (supplier) but it is also a user. On the one hand, it can obtain data from international databases, its access to these is ensured, on the other hand it is reasonable for the HCSO to call in data by means of computers from the databases of the various offices and institutions as it is faster and cheaper than the former methods of data supply. In this respect the HCSO has still a lot to do while respecting the restrictions of the Act of Statistics for there are still a lot of data to be found with several organizations of many of the basic data of which the HCSO could make use by direct contact in its own work, naturally in favour of the Hungarian national economy and society as a whole.

Increasing the role of statistical science and education

In this paper I last mention one of the most important questions as regards our future, namely the consideration and increase of the role of statistical education and science. Our history goes back in this field again to Károly Keleti who went in for the science of statistics and who inspired statistical education. It is unquestionable that during the decades which have passed since then a considerable progress could be observed in both fields even if it cannot be described by linear trends. Despite this I feel that we have some problems here of which I would mention only a few ones.

As regards statistical education, today this has been built in to the work of the legal and economic university faculties in Hungary. Statistics, accountancy and informatics, moreover in some cases even prognostics are taught in several fields in a concerted way. We cannot expect uniformity from the individual universities because autonomy is ensured for them but some kind of harmonization would be reasonable and necessary in statistical education. A new success of ours is the fact that in public administration an examination in statistics has been introduced and its school-book which has been published recently, is already used in the education.

Numerous schools of several types, among them the so-called business schools are teaching statistics at different levels. We do not have an exact overlook of this but it

would be reasonable if this activity as well were assisted by the HCSO while making use of its experts` network and many decades of knowledge and experience.

There are two areas where I feel considerable insufficiencies.

– In Hungary teaching of statistics starts only at university level though there used to be some periods when it was taught also at secondary schools. Numerous foreign examples show that the planting of statistical way of thinking in the youth is only successful if teaching of statistics appears individually or perhaps as a part of mathematics already in the grammar schools or in specialized secondary schools. The Finnish, French or English practice are good examples for this. I think that in the not too far future it will be worth putting this question on the agenda of the education as nowadays it is inconceivable that the majority of physicians does not know those statistical concepts that are indispensable for their work (such as sampling, analysis of distributions, trend analysis etc.). It is also generally known that at some universities statistics is partly taught within the frame of other subjects, in many cases, however, this type of education appears only in form of personnel training courses.

– The organizations, institutions and instructors are not known enough by the HCSO who deal with statistics, who teach statistics to young people of several ages and it is not always clear either what and on the basis of which sources they teach. I think that the survey of these factors is a task of the HCSO which cannot be neglected.

Even more important than that is the personnel training relating to the science of statistics because at this moment the nationally accepted PhD system does not work yet though all preparations for it have been made and it can be expected that the accreditation process will be finished this year and the degree of PhD of statistical studies will appear in 1998 the latest. I am convinced that this is a primary and indispensable step on the basis of which we should incite the scientific work with those persons who previously attained a candidate`s degree, then a PhD degree or those who will obtain these and who may become Academic Doctors of Statistical Studies in the near future. This is even more necessary because today a relatively small number of scientists exist who obtained the Academic Doctor degree and the majority of them are beyond the retiring age. Last but not least there is no academician who would have had qualifications or occupation as statistician and I think it probable that our prospects will improve by the new PhD system also in this field.

As it appears from the issues briefly described in this paper, today the HCSO is competitive in many fields with the member-countries of the European Union. There are some fields, however, in which we have to make efforts for our closing-up, moreover, if it is possible, for our making steps forward in order to maintain our status among the leading countries also in the future. This is the common aim of the management of the HCSO, of the people who work here and of the society of Hungarian statisticians as well.