Development Program of Hungarian Statistics

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Abstract: This paper examines the state and development of official statistics in an "atypical" transition country. Hungarian statistics differ in many respects from other, formerly centrally planned economies, which has had a substantial effect on its development program.

In terms of the basic characteristics of transition, changes in the statistical environment and the new Act regarding statistics are discussed. Out of the various major areas of development, the national accounts, financial statistics, manpower statistics and the short-term indicators are discussed. Special attention is paid to the new conditions and new forms of data collection.

Key words: Central-Eastern and Eastern Europe; transition; economic statistics.

1. Introduction

The Hungarian Central Statistical Office (CSO) established recently a Medium-Term Development Program for the period of 1991–1994. The basic principles underlying the Program are twofold:

1. Hungary belongs to the category of "transition" countries, where "transition" denotes the fundamental change of socio-economic conditions which is taking place in the Eastern and Central-Eastern European countries. From the point of view of statistics the most important characteristics of transition are the dismantling of central planning as social–economic management parallel with the introduction of market economy; an increasing share of the private sector; and a growing number of small scale economic units.

2. Hungarian statistics differ in many respects from those of other countries with central planning. Apart from the early 1950s, Hungarian statistical activity was never fully subordinated to central planning, and its constraints decreased gradually with time. The role of central planning itself was reduced almost every year, especially with the deletion of "compulsory variables" prescribed by it. The Hungarian Central Statistical Office did not consider measuring the performance of central plans its basic task, and extended its data collection to many fields outside the scope of central planning. Some examples:

– Living standard statistics, which, relying upon a rich data base, presented income and consumption of the entire population and of major social strata;
– Input–Output tables, compiled first as early as in 1957; they have since become an organic part of the office's analytic tools;

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– Analysis of social stratification and mobility, based on appropriate observations and methods;

– Statistics of services, initiated in the early sixties, covering selected fields, such as tourism, scientific research, population services, etc.;

– Perhaps the most important issue was the introduction of the basic elements of the System of National Accounts (SNA) (this item will be discussed below in some detail).

2. Basic Characteristics of Transition

2.1. Changes in the statistical environment

The transformation of the political, social and economic relations, which constitutes the environment of the Hungarian statistical system, poses new requirements and sets new conditions for the statistical service. Some of these changes and their effects can be summed up as follows:

i. With the acceleration of inflation and the reduction of real wages, society has become more differentiated, poverty and unemployment manifest themselves openly. As a consequence, more information on living standards is needed, with a special focus on poverty, the minimum subsistance level, etc. On the other hand, mistrust vis-á-vis official data is growing and the willingness of the population to cooperate with the statistical service has diminished considerably.

ii. A number of new entrepreneurial forms of small scale units have sprung into existence. This explosive growth of the number of economic units has shattered the earlier data collection practice of the CSO based on full-scale data supplying. An additional problem is the lack of reliable business

registers covering the newly established small enterprises.

iii. The transformation of the banking system, the extension of the means of fiscal and monetary policy, and the appearance of a capital market (stock exchange, bonds, property agency) urgently demand the development of a market–economy type finance statistics.

iv. Users' needs undergo drastic changes. Changing economic conditions and government priorities led to a restructuring of the demands of government towards official statistics. Even more marked is the appearance of new users such as political parties, the media in their increasing numbers, and last but not least, the business sector. An important feature of development is the identification of these sometimes ambiguous requirements and their satisfaction. (This problem is discussed in detail in Szilágyi and Vadnai 1991.)

v. Whereas transition requires a rapid adaptation of the statistical services to the environment, the efforts of the government to reduce budget deficits have weakened the resources of the CSO. The real value of budgetary support has decreased since the mid-1980s.

2.2. Legislation

A major phase in the development is the creation of the legislative conditions of transformation, the development of an Act on Statistics adapted to the new conditions and requirements. The draft has been adopted by the government, and its submission to the Parliament is expected for 1992.

The new Act on Statistics relies on three sources:

– in some aspects on the Act of 1929,

– it preserves the lasting values of the Act of 1973, and

– some Western-European solutions.

The new Act will extend to official government statistics, introducing the term "official statistical service."

The draft act increases the role of the CSO in developing statistical methods, concepts, definitions and classifications, and in making their utilization obligatory. For the conceptual framework of other information and recording systems governed by other laws, the draft prescribes coordination with the CSO.

The draft also instructs the CSO to organize and update the business registers of economic units.

Provision is made for the establishment of a National Statistical Council operating as the advisory body of the president of the CSO. Its members are the representatives of various institutions of the official statistical service, two representatives each of employers, employees and local authorities, the representative of social security, and five experts representing the statistical sciences.

Substantive modification is taking place with respect to the system of compulsory data supply, which will be governed by an annual national data collection program. This program will be developed by the Statistical Council and subject to government approval.

The draft provides careful provision for the dissemination of the results of data collection as well as the protection of the individual data.

3. Major Areas of Development

3.1. National accounts

It is important to note that SNA, i.e., the accounting system of the market economies, is not new in Hungarian statistics. Its basic elements were introduced in the late 1960s when economic reforms began to break up the heavy restrictions of the planned economy and allowed market forces to operate, together with some elements of monetary and fiscal policy. Statistics had to adapt itself to these changes, and the response of statistics to this challenge was the creation of a new accounting system which broke the strict rules of the concept of material production, extended the scope of production to the so called non-material services and introduced a number of terms and methods from the SNA. For example, in the late 1960s the first estimate of the gross domestic product (GDP) of Hungary was published.

Now the target is the introduction of a fully SNA-type accounting system. There is a multiplicity of difficulties in shifting from one national accounting system to the other. These problems stem not only from changes in the basic principles of accounting or in concepts, definitions and classifications but also with serious basic data problems. The increasing importance of the private sector, the growing number of non-profit institutions financed by various sectors of the economy, institutional changes in the financial sector, etc., must all be worked into the new accounting system.

As a result of all these circumstances, one cannot expect rapid and spectacular progress. What is actually envisaged is a step by step development, solving first the basic problems such as the identification of statistical units, the highlighting of institutional changes, the development of government accounts, the clarification of relationships between financial statistics and national accounts, etc.

The new business bookkeeping became operational in 1992. It has a great effect on

all the major concepts used in national accounting, the more so since the most important data sources for compiling national accounts are the jointly authorized annual taxation – financial – statistical reports of the enterprises. Unfortunately the new enterprise bookkeeping system, and, especially the financial report based on it, does not fulfill the requirements of national accounting. As stated by the President of the Statistical Office: "It has become unsuitable for reliably identifying even the most fundamental macroeconomic magnitudes (e.g., GDP)" (Vukovich 1991, p. 10). In this new situation the combination of various actions will be used:

– Supplementary reports in order to provide any omitted information;
– More reliance on administrative records, e.g., tax returns;
– Use of various statistics collected on production, prices, labour, capital formation, income, etc.

Unfortunately, however, these various data sources do not generate as consistent a data set as the former financial reports did. Consistency is one of the basic features of national accounts. Consequently, even the combined use of all possible data sources will, most probably, reduce the quality of the national accounts.

In 1991 the CSO revised the system of industrial classification used in Hungarian statistics. The new Standard Classification of Economic Activities went into effect January 1, 1992. The new system adopts the ISIC Rev.3., at its first two levels. Some special features regarding the organization of the production in the Hungarian economy are followed at the third and fourth level of the ISIC hierarchy.

For the future, but still within the period of the medium term program, the following major actions are envisaged:

– compilation of production accounts based on establishment and commodity data;
– compilation of quarterly accounts;
– the development of a "bridge" between government finance statistics and national accounts;
– the coverage of "hidden" or "informal" activities;
– determination of the output of the financial sector (e.g., value added of banks and insurance).

3.2. Monetary, government finance and balance of payments statistics

The introduction of new monetary, banking, public finance, and balance of payments statistics has to be preceded by legal changes in government finance and the banking system.

A two-tier banking system was introduced in 1987, and the financial sector has grown significantly since that time. It is envisaged to enact some basic regulations concerning government finance.

Financial data are primarily collected and compiled by the National Bank and the Ministry of Finance, the CSO being mostly reponsible for coordinating the concepts and methodologies of banking, government finance, and balance of payments statistics.

In December 1991 the Hungarian Statistical Association convened a nationwide symposium on the problems of monetary and finance statistics. In addition to staff from the CSO, participants from diverse authorities – Ministry of Finance, the Central Bank, the commercial banks, Tax Office, customs authority – were present. The discussion resulted in the clarification of a number of issues related to these types of statistics.

3.3. Labour force statistics

The social–economic transition has a significant and many-sided influence on the conditions of employment. The change of the economic structure, privatization, the limits of the professional and geographical mobility of manpower and other factors considerably modify the present aspect of the labour force market; one of its most outstanding features is the appearance and expected growth of unemployment.

This brings new tasks and conditions for labour force statistics. The past practice of regular establishment surveys is maintained, but with substantial modification in concepts and data collection methods. In addition to the traditional surveys, household-based labour force surveys became necessary to monitor:

- the short-term evolution of employment,
- the extent of activities in the second (or informal) economy,
- the effective number of unemployment (now only the registered number is known),
- the reasons for becoming unemployed,
- the duration of unemployment,
- the structure of unemployment according to sex, age, education, etc.

Another important component of the development of labour force statistics is the revision of classification of occupations. The basic features of this revision are:

- the adoption of the concept and structure of ISCO Rev.3.;
- accurate representation of the employment structure, the present social and economic conditions in Hungary, and the terms used in present laws;
- linkage to the existing times series;
- flexibility and openness to further modifications and amplifications.

3.4. Statistics on short-term economic developments

The Hungarian CSO regularly publishes a considerable amount of monthly and quarterly data. These publications cover a wide range of subjects, e.g., production, sales, foreign trade, investments, employment, prices, etc.

Nevertheless the revision and development of these statistics was necessary in addition to the consideration of some methodological issues for two reasons: (i) enabling the set of short term indicators to monitor business cycles; (ii) contributing to short-term forecasts.

A sample of the new activities is:

- quarterly estimation of basic macroeconomic indicators;
- new monthly index for value added in mining and manufacturing;
- extension of financial and government statistics;
- estimations of labour costs;
- social and welfare indicators.

Seasonal adjustments have no tradition in Hungarian statistics. Work in this field has just begun. Other areas of substantial development not discussed here in detail are foreign trade statistics, price statistics, environment statistics and selected fields of social statistics.

4. Strategies for Data Collection

The development of the data collecting system of the CSO primarily entails the updating and modernization of business type (mainly economic) statistical data collection. Special attention has to be paid to the consequences of the changing environment, as discussed in Section 2.1. Two aspects of this development need special considerations: (i) business registers and (ii) the principles of the data collection.

4.1. Business register

Given the development goals outlined earlier, establishing a good business register is crucial. The main problem is the rapid increase of the number of small private enterprises. The number of data suppliers registered by the CSO may increase, according to estimates, 20 to 30 times over the next few years. The current register cannot handle such an increase and consequently has to be radically changed if all economic units are to be included in the business register.

The present version of the register dates from 1978. In accordance with the economic institutions of the time, the register was confined to government-owned enterprises. The coverage of the register was considerably expanded in 1988, when it became legal to establish private enterprises. From 1988 to 1991, the number of registered private companies increased from 450 to 31 000.

Currently the CSO register includes about 43 000 units. This, however, constitutes only a fragment of the half-million organisations registered with the Tax Office.

The requirements of the new business register are: to identify unambiguously each actor in the economic process, to serve as a sampling frame for surveys, to comply with the administrative and statistical requirements of other government organs, and to facilitate the production of enterprise statistics as well as data dissemination.

In addition to the unique identifier and the name and address of the economic unit, the register contains other statistical and technical information. The data base is structured in three parts: a file with the identifying data of the units; a file of changes which have taken place since the beginning of the year; and a data file for quarterly output. Updating is done monthly for all members, using input terminals, and basic checks are performed automatically. The total register is stored in an IBM mainframe and managed by a staff of 20.

The development of updating strategies and practical procedures for their implementation remain a major – yet unsolved – problem.

4.2. Data collection principles

The transformation of the system of data collection in the business sector needs a careful selection of data requirements in order to avoid overburdening the respondents and to minimize non-response rate. The strategy has to take into account the new institutional structure of the economy, with decreasing share of government owned units and the growing role of the small scale and/or private enterprises.

The data collection strategy is based on the following principles:

i. Censuses in different sectors (industry, construction, agriculture, etc.) are carried out in 5–10 year intervals, by joining the survey programs of international statistical organizations, whenever possible.

ii. Current statistical observation in the business sector on production, manpower, material input, etc., according to the following scheme:

– full scale data collection for units above 50 employees monthly and quarterly, above 20 annually;
– sampling of units above 20 (in the construction industry 10) up to 50 employees monthly, quarterly and annually.

iii. No direct data collection from units below 20 (in the construction industry 10) employees. In this field reliance is made on administrative (e.g., tax) data sources.

5. Some Concluding Considerations

The revision of the Hungarian statistical services fortunately coincides with the requirements and process of the general renewal of European statistics. In the economically developed countries there is a growing emphasis on the requirement of unifying national statistics and adjusting them to international standards. This trend is particularly strong in Europe, as the establishment of a Unified Europe demands unified statistics not only from European Community members but also from states in close relations with the Community.

Application of international standards has belonged traditionally to the strategy of the official statistics in Hungary. Nevertheless, previously national statistics were linked to international recommendations through various bridges (e.g., conversion keys). The present strategy is the direct adjustment of national practice to international standards. This approach has a double advantage: the additional work needed for conversion is no longer necessary and the operation of international comparison itself becomes faster and more accurate.

6. References

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