

Voorburg Group - Seventh Meeting on Service Statistics

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MODEL SURVEY OF COMPUTER SERVICES -
CZECHOSLOVAK EXPERIENCE

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I. Goals of service statistics in Czechoslovakia

Great attention is focused on service statistics in Czechoslovakia in the last years. Services appear as the most dynamic and in near future predominant sector of economy in the country. Utilizing the experience of developed countries, the previous papers of the Voorburg group, Eurostat and other documentation goals of new concepts of service statistics in Czechoslovakia were formulated, taking into the consideration inner national needs specific for the transition period:

- to obtain necessary information as far as possible of **complex** character on the situation and development of individual branches of services, i. e. on main inputs (capital investment, fixed assets, labour, current assets) and outputs (production and other performances in detailed break down), incl. resp. financial flows and financial results of the process of production and services
- to obtain necessary information in respective **break down**, i. e. by detailed NACE, rev. 1 and CPC classifications especially
- to obtain information both for **operative purposes**, in a limited scope of variables (under Czechoslovak conditions because of rapid development of services mainly due to the process of privatization of the economy on quarterly basis) and in full concept for **longer term analytical purposes** (annually)
- in connection with the transition from MPS to SNA to obtain at the same time necessary information for **national accounts** (annually) and for estimations of GDP (quarterly)
- to decide proper **reporting and statistical units**, i. e. establishments for SNA purposes and enterprises for financial indicators on financial flows and results
- while respecting specific needs of individual service statistics to implement the main moduls in a **unified way** for all the branches of service statistics with links to respective moduls of production statistics

- to reduce the reporting burden of the reporting units not only by proper combination of **sample and exhaustive methods of data collection** depending on the size of units and periodicity of the survey but by attempts to exclude **duplications** in reporting of the data by the reporting units (for example information on capital formation, fixed assets, employment etc. are no more collected within other specific surveys, but are taken from data processing of these complex service statistics surveys).

These goals can be achieved gradually only. The implementation of establishments as reporting units instead of the old system of enterprises cannot be a question of 1 or 2 years only, the necessary scope of information with full links to international recommendations and practice of developed countries can be achieved gradually only too. In spite of this the Czechoslovak system of service statistics implemented from 1992 and its improvement prepared from 1993 mean an important progress as compared with what existed in the years 1989 - 1990.

II. Pre-test of the model survey of computer services (the proposal of Statistics Canada)

Within the framework of the preparatory work for 1992 reporting system in the entity of service statistics one of the important steps was the pre-testing of the model survey of computer services prepared within the activities of the Voorburg group by Statistics Canada utilizing also the approach of other countries (New Zealand, Australia). The main findings for Czechoslovakia from the pre-test can be summarized as follows:

- the general concept of the model survey prepared by Statistics Canada with 11 moduls according to the last version of the model on principle showed to be acceptable, reasonable, providing useful relatively complex information on the situation in computer services with logical links to the main aggregates of SNA and could serve as a good basis for creation of new Czechoslovak model
- at the same time it showed that owing to the previous not too developed system of service statistics in Czechoslovakia this model can serve more or less as an ideal basis for new Czechoslovak system which could be in full contents achieved gradually only

- moreover in the transition period of Czechoslovak economy to market conditions the institutional system, namely individual administrative rules differ from the system in developed countries with market economies for the time being which cannot be ignored in the statistical surveys and some of the variables must be modified to a certain degree (this concerns for example the whole system of taxes and transfers to the state budget etc.)
- complex character of the survey together with implementation of the principle of excluding duplications with other surveys as well as of unified approach in case of the main moduls in the whole entity of services - and with links to the corresponding moduls in production statistics as well - resulted in different arrangement of the questionnaire into the individual moduls and their contents (although large majority of the variables from the Canadian model were included into the national survey or in some cases will be included for 1993 - see later).

New concept of service statistics in Czechoslovakia, including the surveys in the computer services was implemented from 1992 in the form of quarterly surveys (simplified) and especially of annual surveys (in full contents of the variables).

III. Survey of computer services in Czechoslovakia 1992

As already mentioned in construction of the questionnaires the points of view of periodicity and size of the units were taken into account. The whole system includes 5 individual questionnaires and utilization of some of the data from existing special "accounting questionnaires" (a kind of administrative records in the responsibility of ministries of finances):

- a/ Quarterly establishment survey of computer services - establishments with 25 or more employees only ^{1/}
- b/ Quarterly enterprise survey for small units (unified simplified survey for all the branches) - enterprises up to 24 employees

- 1/ under conditions of beginning privatization of the economy only these units still represent the decisive ratio of total outputs and employment (although as concerns number of units the units up to 24 employees represent the predominant part of the computer service industry already)

- c/ Annual establishment survey of computer services - establishments with 25 or more employees
- d/ Annual enterprise survey of computer services - enterprises with 25 or more employees
- e/ Annual enterprise survey of computer services for small enterprises - enterprises up to 24 employees.

The two main surveys of the system are annual establishment and annual enterprise surveys /c and d/ which are described in the following text. The remaining 3 surveys contain limited scope of variables either due to shorter periodicity or size of units.

Annual establishment survey /c/ contains 12 moduls:

- Modul 1 - Gross turnover with 12 items (break down by components of turnover)
- Modul 2 - Selected variables on taxes, subsidies, transfers to state budget, incl. section on employment, wages and non-wages compensation of employees
- Modul 3 - Intermediate consumption with 13 items (break down by kinds of intermediate consumption)
- Moduls 4 and 5 - Fixed assests with 14 items (value of fixed assets, changes during the period, depreciation by commodity groups)
- Modul 6 - Gross turnover with 7 items (break down by components and commodity groups - Czechoslovak modification of CPC ^{2/})
- Modul 7 - Consumption of performances and services of material and non-material character (expenses) by 38 items of Czechoslovak classification of performances
- Modul 8 - Consumption and changes of stock of fuel and raw material by commodity groups
- Moduls 9 and 10 - in 1992 not used (specific moduls)
- Modul 11 - Waste during production and services and their possible utilization (by kinds of waste)

2/ on principle items 8410 - 8499 CPC 1989, in full scope from 1993

Annual enterprise survey /d/ consists of 10 moduls:

- Modul 1 - Employment and wages with 10 items, incl. detailed territorial break down according to real working place
- Moduls 2 - 4 - Structure of employment in research with 12 items
- Modul 5 - Output (performances) of research with 5 items by kinds of output
- Moduls 6 and 7 - Characteristics of research (organizational status) and ways and sources of financing with approximately 20 items
- Moduls 8 - 10 - Purchase and sale of licences by 5 items of kind of licences and country of licence partner.

The results of both surveys along with the remaining three surveys are processed by 4 digit NACE classification, i. e.

- 7210 - hardware consultancy
- 7220 - software consultancy and supply
- 7230 - data processing
- 7240 - data base activities
- 7250 - maintenance and repair of office, accounting and computing machinery
- 7260 - other computer related activities

with special code 7200 for combined activities where main activity was difficult to decide.

As mentioned above, there exists another special **"accounting survey"** in the responsibility of ministries of finances (a kind of administrative records processed by these ministeries) for all the branches of the economy concerning the financial results with very detailed break down of revenues and expenses, results (profit, loss), taxes and other transfers by kinds, providing good picture on financial situation of the enterprises^{x/}. In order to reduce the reporting burden of the units practically no financial variables are included in the statistical questionnaire of computer services, but for complex analyses of the industry - as well for needs of financial accounts SNA - the necessary items are overtaken from this source.

Number of units in computer services by ownership, legal form of organization and size of units are indicated in Annex 1. Selected economic results for the first quarter of 1992 are indicated in Annex II, the list of variables of the two main annual surveys are indicated x/ income statement

ted in Annex III (for technical reasons the two latter annexes can be distributed during the meeting only).

IV. Conclusions

1. The experience gained from the reporting units as well as first results of data processing for the first quarter of 1992 show, that the system as a whole is acceptable both for the units as well as from the analytical point of view and after some changes in the contents of the survey, methodology of variables and in organization of the survey can provide useful information corresponding to the transition period of the economy.

2. Priorities of the system can be seen in complex information within one (or several individual) survey/s/ without collecting duplicate information from the reporting units as well as in unified approach to the main moduls in all the service industries - with links to corresponding moduls in production of goods industries - facilitating the programming and data processing.

3. On the other hand the concentration of variables within one survey and accumulation of data processing into one relatively short period connected with mentioned harmonized approach in all the industries resulted at this stage of work in some organizational and technical difficulties along with capacity problems of the staff of regional statistical agencies (which collect, complete and organize automatic controls); it is expected after the first difficulties and proper changes in the timetable of data collection and processing the system could operate in expected way.

4. Anyway substantial changes are being in preparation for 1993:

- modification of the contents of the survey/s/ along with changes in methodology due to changes in administrative rules in some of the areas (new system of taxes incl. implementation of VAT, in social insurance etc.), due to the needs of SNA and improvement of the complexity of the survey/s/ - for example new items on export and import, the main variables on revenues, expenses, financial results from previous "accounting surveys" (they will be no more collected and processed by ministries of finance, will remain in the units for financial control purposes in connection with enterprise taxes)

- concentration on complex picture mainly in case of enterprises while collection information on establishments in case of really important selected variables only
- technical modification of the survey/s/ with better and more logical arrangement of the individual moduls and their contents.

We feel important to underline that during all these changes and improvements Czechoslovakia makes extensive use of the help rendered by other countries within the PHARE programme or in other forms, especially the help of CBS of Netherlands in case of national accounts and the links to statistical surveys, INSEE of France in case of service statistics, Eurostat (Handbook of Service Statistics incl. direct personnal contacts and consultations) and other countries. Of course, to achieve the ideal state can be the matter of gradual development only (if any "ideal state" is possible to achieve at all).

Czechoslovakia very much appreciates the activities of the Voorburg group considering them extremely progressive and useful for development of service statistics as a whole and in the individual fields in countries. We very much hope that on next meetings we would be able to demonstrate another progress in Czechoslovak service statistics. Even if our country is far from being considered as a pionner, progressive country in the area of service statistics for the time being and hardly can be a leading country for any topic, still we feel that Czechoslovak experience - as probably underdeveloped country in service statistics - could bring useful information on possibilities and problems of implementation of progressive international experience and recommendations. And this could be an input to Voorburg group activities as well.

ANNEX I

Number of units by ownership and legal form of organization

NACE 1/	Total number	out of which 2/		From total number of incorporated units				
		unincor- porated	incor- porated	private companies	coopera- tives	joint stock com. 3/	state enterp. 4/	others
72	8565	7222	1343	1076	41	105	113	8
720	4349	4180	169	108	5	13	40	3
721	782	580	202	184	4	9	4	1
722	2107	1480	627	553	17	42	12	3
723	468	339	129	54	7	24	43	1
724	9	5	4	2	-	1	1	-
725	599	487	112	103	2	3	4	-
726	251	151	100	72	6	13	9	-

Notes:

- 1/ 720 - more NACE activities combined, was not able to distinguish at three digit level; 721 - hardware consultancy; 722 - software consultancy and supply; 723 - data processing; 724 - data base activities; 725 - maintenance and repair; 726 - other activities
- 2/ unincorporated units - private entrepreneurs not registered in business (company) register; incorporated units - legal firms registered in business (company) register.
- 3/ mixed ownership (state, cooperative, private - usually former state enterprises)
- 4/ incl. larger relatively self-financing establishments registered in business (company) register

Number of legal firms by size groups 5/

Number of employees	Number of firms	Distribution in %
0 or not identified	533	39,7
1 - 24	729	54,3
25 - 99	51	3,8
100 - 499	22	1,6
500 - 999	2	0,1
1000 and more	6	0,5
Total of 72	1343	100,0

Notes:

- 5/ unincorporated units are usually own-account workers without any employees

Source: Statistical registr of units, Federal Statistical Office, Czechoslovakia (situation to July 1, 1992)