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Progress Report

Norway

Session 1

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1 PRICE INDICES FOR SERVICE INDUSTRIES

Statistics Norway has started work on **improving price statistics** in the field of services. In 1998/1999 a **pilot project** was carried out on **four activities relating to Section K of NACE Rev 1**: Architectural activities, Engineering activities and related technical consultancy (74.2), computer and related activities (72), and advertising (74.4). These four activities represent more than half of the total turnover of section K in Norway. The survey was done for the four quarters of 1998. Information was gathered on prices and on factors believed to be of importance for the price determination of the projects.

Based on the survey results, supported by the business register, the purpose of the project was to **develop a price index for each** of the four industries involved. **Regression models** were used to correct the observed price index and to remove factors that are causing quality problems. Models were employed by stages to find which variables were the significant ones in each case. These involved both numerical variables (such as number of hours and employed persons) as well as classification variables (0 or 1, e.g. distinguishing public and private activity).

A **main lesson** was that the regression model could be used **for architectural services and for civil engineering services** (buildings). Initially we tried to use prices per square meter as basis for the index. However, these indices did not perform as expected. An **index based on hourly charged rates** proved less volatile and was employed instead.

For computer services and for advertising the regression model did **not produce satisfactory results**. For advertising, in fact, the response rate was too low for any meaningful estimation to take place. Further work in these fields has, so far, been discontinued.

For architectural services and for civil engineering services the indices have been continued and will be published on a quarterly basis. We will also be looking into the possibilities of doing **pilot projects for other parts of NACE K.** Presently pilot work has been taken up on NACE 711 **Renting of automobiles**.

2 CLASSIFICATION OF SERVICE PRODUCTS

CPC has not been employed in practical work on service statistics in Norway, neither in the collection of primary statistics, nor in the national accounts and balance of payments statistics. The ICT work will, however, make use of the CPC (or rather CPA).

On collecting information on services, use is made of the **NACE rev.1**. Data on output or sales at the most detailed industry level has been interpreted and used in national accounts to arrive at **NA products** estimates. The product classification currently in use in the Norwegian National Accounts was established in the first part of the 1990s and **based on the CPA** classification of Eurostat. Various adjustments were made, however, to adapt it to NA and BOP needs. Since then, only minor adjustments have been made to the NA product classification, and no revision has been carried out or advocated on basis of the publication of the CPC Version 1.0.

The relation between CPC, the practical statistical work and negotiations on services is also a matter of concern in talks with **Ministry of Foreign Affairs**.

3 MEASUREMENT OF THE DEMAND FOR SERVICES BY ENTERPRISES

Statistics Norway has neither substantial results nor work in progress to be reported on this item. We are nevertheless interested in following up on the result of this initiative, as it is central to the forthcoming revision of the national accounts. A better basis for detailing intermediate consumption of services would certainly make a positive contribution to the NA balancing work.

4 INFORMATION SOCIETY STATISTICS

1. ICT-sector
We have been discussing the OECD ICT-sector definition with our national users. On the one hand we have agreed on a more narrow definition based on national 5-digit industrial groups - excluding some of the activities within wholesale trade. On the other hand we have been testing the definition against membership lists in the ICT industry branch organisations. We have in Norway two organisations organising the enterprises in this branch. It appears that a lot of the member enterprises fall outside the OECD definition. For one organisation (mainly manufacturing) the definition caught only 50 per cent of the member enterprises. For the other organisation 75 per cent of the member enterprises were covered by the definition. On this basis we are running a rather animated discussion on the principles for defining the ICT-sector industries.

2. Web-based quarterly bulletin
We are about to build up a model for combining the yearly structural statistics for the ICT-sector with quarterly indicators. This will allow us to publish indicators on the development on a set of key variables such as employment, turnover value added etc for the ICT-industry. These indicators will also be linked up with the quarterly national account - allowing for comparisons with the performance of the rest of the economy. These indicators together with other statistics on the information society, will be published as part of a web-based quarterly bulletin on the Information society. First issue will be out this autumn.

3. Use of ICT in central Administration
Surveys on the use of ICT in central public administration have been carried out periodically since the end of the 1980s. A new survey was done in 1999. These surveys are not done by Statistics Norway - but by a public consultancy.

4. Use of ICT in enterprises
A sample survey on the use of ICT by enterprises was done autumn 1999/winter 2000. The survey was based on the Nordic model questionnaire with a few national extensions.
The sample covered a total of close to 5000 enterprises. Main focus was put at enterprises with 10+ persons employed, but a separate sub-sample of 1000 enterprises with employment less than 10 was included as well. For enterprises 10+ the sample covered one in four enterprises and two thirds of employment and turnover in the total population.

The survey covered most private sector industry groups, leaving out the primary industries and the public sector. The response rate was very satisfying for a voluntary survey - and ended at 75 per cent total. That allowed for rather detailed breakdowns and presentations of the results.

The results were aggregated - so they give a weighted representation of the total population. Three different methods were used for weighting. Primarily the results were weighted by the number of enterprises, but weighting was done also by employment and by turnover. In this way results can be presented from three different perspectives: i) 66 per cent of Norwegian enterprises have access to internet. ii) 82 per cent of total persons employed are working in enterprises with access to the Internet or iii) 85 per cent of total turnover is made in enterprises with access to Internet. In principle all results can be presented in these ways - giving alternative sets of information.

The main national extensions to the Nordic model questionnaire were a module on "payments made online" and a module on the geographical location of customers.

Presently we are negotiating to repeat a similar survey this autumn - and hopefully this will be made into a regular annual survey for the coming years.

The results of this year's survey (in English) can be found on our web-server http://www.ssb.no/english/subjects/10/03/ikt_en/arkiv/artikler.html and a more complete report with a brief English summary can be found on http://www.ssb.no/emner/10/03/rapp_200024/ .

I should also add that we are presently doing an exercise of estimating more detailed information on the volumes of e-commerce based on this survey. Analyzing the reliability of such estimates and considering the strengths and weaknesses of this type of survey for making such estimates, are part of this exercise.

5. Nordic report
Similar surveys on the use of ICT in enterprises have been carried out also in Denmark, Finland and Sweden during 1999/2000. On this basis we are presently preparing a Nordic publication with a comparative approach on the use of ICT and e-commerce in Nordic enterprises. The report will be available later this autumn.

5 STATISTICS ON NON PROFIT INSTITUTIONS

Non profit institutions serving households - **NPISH** - was introduced as a separate institutional sector in the Norwegian national accounts for the first time when SNA93 and ESA95 were implemented in the mid-1990s. It was evident that the estimates were quite uncertain, mostly estimated indirectly from utilising government accounts data. An effort on improving these estimates will be made in near future with the **new national accounts revision**. Exploring enterprise data for non-financial corporations and other data sources on institutional sectors will be part of this effort. The treatment of the non-profit institutions in the **Business Register** is another important issue. It is a problem that statistical units in areas such as health, social work and education have not got an institutional sector code, making borderlines between institutional sectors unclear, e.g. between NPISH and general government. Between the two main revisions of national accounts, Statistics Norway has also been involved in the **John Hopkins Study** on non-profit institutions.

6 MEASUREMENT OF EMPLOYMENT IN SERVICES

Statistics Norway established **Labour Accounts (LAS)** in the 1980s, into which several sources have been compared and utilised when making "best possible" estimates of employment and compensation of employees. Such a consistent review and comparison on levels was made in the NA implementation of SNA93/ESA95. A similar exercise is being taken for the forthcoming NA revision, now **reviewing new structural statistics** for NA and LAS. Benchmark year 1998 and series back to 1990 are set for this revision. Comparisons made so far seem to indicate that employment in business services is underestimated, no major deviation is found for wholesale and retail trade, while transportation has not been verified closely yet. When to be finally published in 2002, it is expected that employment data in services will improve in quality. Data from the Register of Wages and Salaries (RWS) have already improved substantially since the NA main revision in 1995, at which time RWS was mostly used for control purposes. Now, an **overall consistency check** on the entire statistical area of compensation of employees and employment has become possible through the improved RWS.

7 INTERNATIONAL TRADE IN SERVICES

Systematic statistical information of Norwegian international trade in services is made through the current publication of **BOP and NA statistics** only. Presently, **main statistical sources** for these data are the bank settlements reports collected by Norges Bank, and various industry statistics collected by Statistics Norway, of which annual ocean-going transport and quarterly oil industry statistics are particularly important. **The bank settlements statistics** produced by Norges Bank will most likely be abandoned in favour of a direct collection system in some years time. This will imply the collection of data directly from enterprises and other relevant units. In consequence, the division of labour between Statistics Norway and Norges Bank probably will change. Norges Bank will concentrate on flows and stocks of financial capital, while Statistics Norway will be responsible for the current account, and especially exports and imports of goods and services. In this situation, it will be important to **co-ordinate data collection and estimations** related to services in order to meet the needs of international trade statistics, BOP, NA, industry statistics and labour market statistics. Thus, Statistics Norway will invest in planning for a new statistical collection system related to international trade in services in next couple of years.