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**IMPLEMENTATION OF NACE REV. 2 IN THE CZECH STATISTICAL OFFICE –
THE FIRST IDEA**

Invited paper submitted by the Czech Statistical Office*

* Prepared by Mr. Stanislav Palas, Czech Statistical Office. Paper posted on Internet as received from the author.

1. National classification of economic activities

The NACE Regulation EEC 3037/90 allowed Member States to develop and implement national versions of NACE, adapted to their economic reality. In the case of NACE Rev. 1 and Rev. 1.1 it was done by adding a fifth level to the four levels of NACE. The Regulation NACE Rev. 2 will provide a similar option.

The Czech Republic (CR) is interested in developing a national version and we expect covering approx. 100 items for additional national classes. The time necessary for the CR to finalise the national version is 6 to 9 months after the complete NACE Rev. 2 has been presented. We assume that the complete NACE Rev. 2 will be finalised by the end of 2005 or in January 2006 and will be available for another works in NSI.

Very important assumption for the implementation of the NACE Rev. 2 seems to be also to have explanatory notes for the whole classification NACE in time (as soon as possible). Works on the national version of classification will cover:

- the creation of the systematic part of the NACE classification
- the creation of the Czech version of explanatory notes
- the creation of correspondence tables between NACE Rev. 1.1 and Rev. 2 – Czech national version.

The CR is also interested in developing a national version of CPA covering approx. 100 items. The time necessary for the CR to finalise the national version is 6 to 9 months after the CPA has been presented.

All works will be finalised by legislative activities, which will be connected with the publication of new classifications NACE and CPA, namely both in electronic version and in paper form.

The changes of revised NACE and CPA Regulations will affect laws and regulations in statistics and other areas. There is a specific, not exclusive reference to the VAT Act as amended in the State Statistical Service Act. This reference is related to the fact that classifications are binding for authorities carrying out the state statistical service and for reporting units in providing data for statistical surveys, in processing thereof and, further, in cases stipulated by a special Act or regulation.

In the frame of the legislative process of preparing relevant Regulation, it is necessary, therefore, to insist on a sufficiently long transition period.

It is impossible to start the legislative process earlier, i.e. before final adoption of the NACE and CPA Regulations.

2. Business registers

The business register (BR) is one of the main infrastructures for the production of business statistics, both short-term and structural ones. Implementation of NACE Rev. 2 - national version, into the business register is the first milestone of the whole implementation process. BR is fully incorporated to the preparatory works and carrying out of the business statistical surveys. During this process was defined the role of the BR - conditions of flat files with enterprises, which were chosen to the sample, feedback to the BR, evaluation of the main activity according to the surveys.

Common meetings are organised with all users, main needs are discussed and every year is prepared timetable of special activities for updating of the BR before starting surveys for the next year. Every month is prepared set of criss-cross tables, which are distributed via intranet to all users. The special analysis of the data consistency is done and inconsistencies are removed in co-operation with BR administrators.

Implementation of NACE Rev. 2 in the Business Register depends on the timely completion of the new version of classification incl. methodology and on the preparation of the correspondence table between NACE Rev. 1.1 and NACE Rev. 2. Another important factor is a solution to the way of recoding in cases of ambiguous factual transformation (one activity included in a single code of NACE Rev. 1.1 splits into more new codes). If this work is finished by the end of 2006, it will be possible to prepare the Business Register for surveys taken in 2008 already according to the new revised classification. If not, then from 1 January 2009.

To determine all activities performed by businesses, the Business Register uses predominantly administrative sources of information on legal birth of units (enterprises) – in some cases (natural persons) we receive from administrative data sources activities that are already coded and the CZSO takes over the codes directly (if the NACE classification is used) or does the recoding according to the conversion table. Data on activities of legal persons are acquired by the CZSO only in text form and workers administering the Business Register do the coding according to NACE.

Determination of enterprise's principal (prevailing) activity represents a problem. To this end the CZSO uses either statistical surveys organised specifically to verify data entered in the Business Register or surveys taken by the CZSO in individual branches. If these data are unavailable, the point of departure is usually the text of the name of enterprises and the fact that the most important activity is usually given in the first place of the list of carried out activities of business data or according to descriptive information (using a report, by phone).

Only recoding according to the conversion table for natural persons is used (see the preceding point). There is no tool for automatic coding available in the CZSO. Such a tool would certainly be useful, although the tool in itself does not create preconditions for its meaningful utilisation. Also important are conditions created for enterprises to present information about their activities – if it is a plain text or a description of possible activities, which is prescribed in a way (choice from a list, etc.).

We plan to double-code units in the Business Register, as the Business Statistics Branch of the CZSO express their needs. It should be at least a three-year period after the implementation of the new classification. The double coding of units in the Business Register would be maintained for these three years.

During this activity will be necessary to re-code about 2,4 mil units in the BR. Today we can only specified that combination of methods would be used:

- correspondence tables will be used for relation 1:1 between Rev. 1.1 and Rev. 2
- the rest (16%) will be solved:
 - o with using statistical surveys, where exists question on main activity
 - o with co-operation with administrative source – trade register, where codes of businesses will be recoded with the use of new correspondence table between list of businesses and NACE Rev. 2

- with the use of original wording of businesses according commerce register in the case of big and important enterprises
- estimation method according to decision of subject matter departments according to the Business Statistics Branch

3. Statistics

NACE and CPA are used in many statistical domains. Some of them are relevant for the ESS and regulated by EU statistical legal acts, which, when needed, are transposed in national legislations.

Some statistical domains require particular attention: e.g. Short Term Statistics (STS), Structural Business Statistics (SBS) and Quarterly National Accounts. Moreover, some statistics are based on sample surveys, with sample design defined on the basis of and according to data referred to the old classification. As a consequence, different implementation dates could be established for different indicators (e.g. price indexes).

A problem of comparability in time will occur, particularly in the statistical domain STS. There will be a big problem in rotating samples used for STS. In addition, re-basing to the year 2005 is expected, but the question remains how to do it for the year 2008. Another problem encountered will be the comparability of time series.

It is not yet clear if overall data from statistical surveys broken down by the new classification will be required simultaneously with the year of implementation in the Business Register or later on. Recommendable is leaving a space for thorough orientation in the populations of enterprises in individual branches after revision has been carried out. Using the Business Register and thus putting back the use of the new classification in statistical surveys proper by a year against the implementation in the Business Register would be suitable to this end.

What should be stressed is the difference between implementation in the Business Register and implementation in industrial statistics surveys and outputs. We are able to ensure the full implementation of NACE Rev. 2 in statistical surveys from January 2009, but only provided the necessary correspondence tables between both versions are available in the first half of 2006 and backward conversion according to the new version of NACE Rev. 2 is ensured at least from 2005. This requires that all reporting units be informed on NACE Rev. 2, on correspondence tables between the versions and on methodological principles of the conversion (explanatory notes, etc.) already in 2007 (provided the version NACE Rev. 2 is applied in statistical surveys from 1 January 2009).

The Industrial Statistics Department hold an opinion that if the date of 1 January 2009 is agreed for the application of NACE Rev. 2, it will be necessary to have monthly data for at least the whole years 2008 and 2007 according to both NACE versions: official ones, published still during 2008 according to NACE Rev. 1.1, and „shadow“ ones according to NACE Rev. 2, which will be used from 1 January 2009. Otherwise the monthly y-o-y indices on short-term business statistics from 1 January 2009 will not be produced. At the same time, if the above-mentioned date is assumed, impacts must be resolved as early as 2007 on product statistics, which provide a basis for the industrial production index (IPI), on the choice of representatives in individual CZ-NACE activities and weighting pattern for IPI calculation. In doing so, it will be necessary to revise the base of 2005 for IPI, which will be applied from 2007, and indices from the year 2000 will be back-cast accordingly.

In case we agreed to 1 January 2008 as the date of applying NACE Rev. 2, then it would be necessary to put all the above activities forward by a year and at same time to put the creation of base 2005 back by a year, i.e. from 2008 on grounds of NACE Rev. 2. However, this is ruled out by the assumed date of finalising NACE Rev. 2 in 2006. This revision should be completed already in 2005, incl. translation into Czech, Czech explanatory notes and Czech correspondence tables and incl. „training“ in the business sphere.

The CR is in favour of a single date for implementation in all statistics – in a majority of cases 1 January 2009.

4. Breaks in time series

Change of classification implies breaks in time series. Some relevant time series need to be reconstructed and expressed in terms of either the new classification or the old one.

Not all time series (set of consistent statistics collected according uniform methodology and presented for many points in time) need to be reconstructed, but some are extremely relevant for conjuncture analysis, policy-makers etc.

Back-cast time series will be produced in most branch statistics. To comply with the needs of users, we deem desirable to have available roughly a ten-year time series of all STS indicators. And at least a four-year time series for the needs of seasonal adjustment.

We can see some specific problem in the frame of the STS. According to the Regulation 1165/98 are not all branches covered by statistical survey. After starting the NACE rev2. use some aggregations will consist not only of the activities, which were covered by the previous NACE rev1.1, but also of new activities, which were not covered by STS (especially in services). Data will be only estimated with some measure of non-consistency.

According to the National Accounts Branch of the CZSO, the question cannot be answered unambiguously at the moment. It will depend on the impact of changes and on Eurostat requirements.

We assume back-cast time series produced for 5 years in structural statistics at national level. In our opinion, it will be necessary to back-cast EU time series concerning under Euro-indicators, Structural indicators and Sustainable Development Indicators.

We assume that discussions (WG etc.) will take place in Eurostat concerning individual statistical domains; the discussions should solve the implementation of the new NACE in relevant surveys in compliance with specific Council Regulations, e.g. for statistics of science and technology, innovations and statistics of information society, so that international comparable time series of key variables are available.

We plan to construct continuous time series in spite of the breaks caused by introduction of new classifications as follows:

- Variant A
1. Fixing NACE on the day of revision implementation
 2. Completing NACE of dead businesses by estimate
 3. Recalculating weights and aggregates for samples of the past years

Variant B Making expert guesses for new (new defined) branches on grounds of a comprehensive analysis of results and necessary changes

Above all, it is necessary to analyse at which level (aggregation) there will be a break, and its nature and importance in terms of specific statistics. For example, we expect a certain, roughly two-year period of applying both NACE versions in industrial statistics. This will enable us to prepare the conversion coefficients. This way we proceeded in re-basing from 1995 to 2000 to acquire IPI for 1998 to 2001 on the base of 2000 (which was implemented from 1 January 2002) inter alia for the needs of seasonal adjustment. In other words, both bases of 2000 and 1995 were used for calculating the base 2001 IPI. There was no substantial change in NACE then.
