

NATIONS UNIES

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UNITED NATIONS

COMMISSION ECONOMIQUE
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ЭКОНОМИЧЕСКАЯ КОМИССИЯ
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ECONOMIC COMMISSION
FOR EUROPE

SEMINAIRE

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SEMINAR

STATISTICAL COMMISSION and
ECONOMIC COMMISSION FOR EUROPE



CES/SEM.36/R.3
27 March 1997

CONFERENCE OF EUROPEAN
STATISTICIANS

ENGLISH
Original: ENGLISH, FRENCH AND
RUSSIAN

SEMINAR ON STATISTICAL NOMENCLATURES

(Geneva, Switzerland, 28-29 April 1997)

Note on the items for discussion

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1. Request for advice

Draw up a list of terms, concepts, sectors etc., which we think present difficulties. Submit this list to the invited countries; supplement it; prepare a kind of multilingual glossary. This note should be considered as a simple practical guide and not a "scientific" project.

2. Determination of the principal activity

Two trends are observed, not only between countries but also within a given institute, between departments or between sectors:

- Overall assessment concerning a unit (cf. "enterprise" unit);
- Calculation of the principal activity from the available data (cf. registers);

The "units" regulation favours the "calculation" trend.

Concept of "basic" activity

(1) Relationship with classification of activities : part of the activity of a unit that falls within a single class of NACE (or of the national nomenclature);

(2) Relationship with product classification (questions of vocabulary, details etc.): generally used for describing a "basic" activity, whether single or otherwise.

Role of the principal activity in the country's overall statistical system

(1) Relationships between statistical instruments: structural surveys, production surveys, weighting of industrial indices etc.

(2) Uses of administrative data (register): fiscal data, information derived from the social welfare system etc.

3. Criterion for determining the principal activity (value added/number of employees/etc.)

If there is a "criterion", "calculation" of the principal activity is the method used (see 2 above).

In theory, value added should be the criterion. This is the indicator that makes it possible to make an unbiased assessment of the relative weight of the activities carried out, from the point of view of economic analysis.

In practice, it is difficult to obtain this indicator (cf. registers). It can be measured by means of "structural" surveys, but these surveys are not exhaustive (sampling; field; etc.). Other indicators can be substituted: number of employees, turnover, etc.

One rule must be laid down: different indicators cannot be used for similar units. It is preferable to select a criterion that has been established to be proportional with value added, both statistically and for a given field (see 4 below).

The presence, in the regulation, of several "substitute" criteria is intended only to permit different methods. Under no circumstances should this be understood as an invitation to take the easy way out.

4. Can the criterion for determining the principal activity vary between sectors within the same country?

It is essential that the method of determining the principal activity should provide homogeneous results. In particular, at the borderline of

different sectors, the method selected should not "favour" either of them. There can therefore be different methods if the basic data used so require.

In this case it is important to define the areas of application of the different criteria very clearly and to make the rule for separating these areas very explicit.

In very broad terms the following equation applies:

$$\frac{\text{number of employees (industry)}}{\text{Value added}} \approx \frac{\text{1/3rd turnover (trade)}}{\text{Value added}}$$

Moreover, personnel numbers are fairly easy to obtain for industry, but for other sectors it tends to be the turnover which is known.

In the case of public services it will again be easier to make use of number of employees (the concept of "turnover" and even more the concept of value added have hardly any operational significance in this area, which we nevertheless have to deal with).

The direct comparison of turnover figures leads to various "errors". The retail price of the goods produced is the same whatever the "length" of the production process. On the other hand, the numbers of employees will be different. Conversely, in some services the direct comparison of numbers of employees also leads to incorrect assessments (programming and data input, for example).

There does not need to be a single criterion for determining the principal activity within the same country. On the other hand, the homogeneity of methods for determining the principal activity between countries appears to be an issue that has not been tackled, despite its importance.

In any case, precise rules are needed for the everyday management of the register. Such rules may be converted into an algorithm of determination, integrated into the utilization of structural surveys.

5. Stability rules

A stability rule is essential, but this term conceals two entirely different problems:

- * Stability of the classification of a unit during a survey campaign.
- * Preserving the classification of a unit, under certain conditions, even between successive survey campaigns.

To this issue may be added the converse issue: the need to modify the classification, even during a survey campaign, under certain conditions.

(1) Stability during a campaign

This is necessary to ensure that the same population of units is questioned throughout the campaign, whatever the subjects of the surveys.

If a "pilot" survey used for determining the principal activity reveals a change in activity, this change is considered to have taken place at the start of the campaign. On the other hand, in managing the register, if the information on the units is received continuously (as is the case with inter-administration registers), the change is made immediately but will not be taken into account in the statistical register until the following campaign.

Finally, if an error in classification is revealed during any kind of alteration to the register, the correction should be made and reflected immediately.

(2) Preserving the classification

This concerns units conducting two or more activities. When the weight of the current principal activity is very close to that of the largest of the secondary activities, a random fluctuation between those two activities may take place, without any implications for the unit in question.

The classification is kept as it is for several campaigns. If the change in weighting becomes extensive, the modification is carried out after (three years). The modification is made if the gap between the two activities exceeds a certain threshold.

(3) Modification required

This case only arises in the event of major restructuring of a unit: for example, acquisition of a local unit.

(4) Purpose of these rules

The statistical register is an instrument designed for the organization of statistical work. One of the important rules of such work is the annual nature of information. We therefore need to provide ourselves with the means of ensuring the stability of the units present in the register during each of the years concerned.

6. Specific classification rules

(1) Holding companies

These are legal units which do not "produce" anything but simply provide the legal and financial conditions so that the other legal units associated with them can produce. Where large groups are concerned, a conventional classification based on a "principal activity" of the group has been considered unrealistic. NACE Class 74.15 is designed for the classification of these units.

Since the "financial companies" sector is distinguished as a priority in the System of National Accounts (SNA), holding companies that are also "financial companies" will be classified according to this characteristic within division 65.

When a legal unit is known as a holding company but carries out a production activity of its own, it will be classified according to that activity.

(2) Associations and voluntary groups of people

The general rules apply to these units despite their special legal form. There is one restriction, however: many associations have no activity in the economic analysis sense. They "render" services but do not "produce" services. The terminology here is unsatisfactory.

If these "groups" have a real specific activity they will be classified according to that activity. On the other hand, if the only purpose of such groups is to bring people together they will generally be assigned to class 93.05. As an exception, it is possible in this very special case to base the classification on the registered purpose of the group: an association whose only purpose is to organize visits to historic sites for its members, with no outside participants, could be assigned to class 92.72.

(3) Professional organizations and trade unions

Professional organizations and trade unions come within division 91 in all cases. Anything they "produce", on the other hand, is classified in the appropriate class. This implies that in this case no principal activity is sought for the legal unit. Local units that come under them, on the other hand, are classified in accordance with the general rules.

(4) Public institutions with several activities

First of all there is a need to agree on what is understood by "public" in this precise instance (cf. example given by Hungary in 1992: "Ministry of Water" covering everything concerned with the production, treatment and various uses of water, including swimming pools).

The public "status" of a unit is not a criterion for classification in NACE. On the other hand, for units whose activity comes under division 75, one operational solution to be considered could be to determine the classifications within this division through lists of national bodies.

There remains the case of multiple activities. Generally this will occur when an institution has a variety of purposes and a more "functional" approach will therefore be required. In France there is the case of certain groups of communes which for public accounting purposes are recognized by only one of their activities. These groups may in fact act in different areas, while their field of action is defined solely by the documents lending them official status. All the statistician needs to do is to try to find a practical solution.

7. Distinctions between public and private

(1) Institutional distinctions

In each country the law may provide for the existence of many intermediate types of legal status between pure "public", in the sense of the central State administration, and pure "private". Many associations which receive no public resources are in this situation, inasmuch as they do not "sell" their services. There are therefore distinctions in the legal status of units which have to be reflected in the register.

On the other hand, in terms of classification by activity, the ordinary rules apply in most cases. Units may be encountered for which classification presents a problem: it is up to each country to find the best solution, as these units have their own characteristics according to the legislation on which they are based.

N.B. It might be conceivable for Eurostat-B6 to keep a kind of "register" of these country-specific legal forms, with any necessary explanations. But this would be an onerous task ...

(2) Economic distinctions

The distinction between market and non-market no longer forms an integral part of the classification of activities. This distinction is

applied to the units themselves. It is therefore expected to be handled within the register.

This distinction is based solely on the gross operating results. A unit classified as "market" may very well be "non-profit-making" according to its articles of association. The convention is that, when over 50 per cent of the operating account is balanced by the sale of the unit's products, the unit is regarded as "market".

On the other hand, if the operating account is only balanced by operating subsidies in excess of 50 per cent, the unit is regarded as "non-market".

Moreover, since the SNA no longer defines the subsectors where these two forms of trading may occur, this leads to double accounting for each family of units.

8. Inadequate consideration of the services area

(1) General case

This is a failing inherent in statistical classifications. In all countries the statistical work devoted to industry is at a fairly advanced stage and serves as a basis for all statistical studies in all sectors. It quickly becomes clear, however, that the concepts used are only approximate once they are taken out of their own specific area. A similar difficulty is emerging for certain types of "non-standard" industrial production.

From the viewpoint of economic analysis, exchanges of services do not have the same character as exchanges of goods, whereas in reality they occupy an entirely comparable place in the productive fabric of each country. But it is not possible to tell how many legal consultations or how many procedures by a research department are needed to produce a given good. This kind of consideration applies to the production of all services.

Since statistical studies are confined to the balance sheets of the units concerned, it has not become customary to designate services as products. Moreover, partly because of the absence of such terminology, the distinction between market and non-market is made even more quickly for these products than for goods. The result is that the statistical services tend to give up on this area. Yet the problem is not much more complicated than the measurement of industrial production around the year 1836 ...

Developments are now taking place. The work that led to ISIC Rev.3 and to CPC (Central Product Classification) has produced some progress, not yet

enough perhaps but real progress all the same. The studies of the Voorburg group have also proposed several ways forward.

(2) Specific case of the countries of Eastern Europe

It would seem that in these countries statistical studies in the area of services have been even more limited than in the western countries. Moreover, since services are by their nature one-to-one exchanges (in the sense of the "one-to-one dialogue" between patient and physician), it seems likely that the operation of the economies of these countries was not conducive to the autonomous emergence of well-developed services activities.

9. Empty (or unused) classes of NACE or CPA (Classification of Products by Activity)

(1) General situation

The mechanism whereby the ISIC and CPC are constructed, by serial splittings of generic categories, frequently lead to the appearance of a category termed "other", the content of which is unknown but which seems indispensable in order to ensure the inclusion of everything contained in the initial set.

This aim is praiseworthy but unattainable: logically, inclusion of everything contained in the initial set would only be possible if the set were defined in a completely comprehensive way. But in most cases the set is defined approximately, in an extensive way. The content of these "other" items then becomes particularly dangerous. "Other" is no longer simply an "ill-defined" item but an entire set.

NACE class 72.60, "other computer related activities", provides a particularly good example of this. First of all, its title could give the impression that it covers activities which are different but "related", without any indication of how they are related, to computers. A similar difficulty was encountered in the past with "electronic" equipment (1970s) or still earlier with articles made of plastic (1960s). In the absence of a sufficiently precise and clear generic definition of the sets concerned, any item called "other" is incomprehensible in itself and disrupts the significance of the aggregate category to which it belongs.

Furthermore, an exaggerated desire to make the preceding classes homogeneous will cause everything excluded from the preceding items to be assigned to this last item. If there is insufficient information on the activities actually performed, their forms of association, and their precise place in the productive fabric (relations with client enterprises, "clusters" of basic services etc.), this leads the classifiers to include only the things

they are sufficiently certain about in the first items. Then, to be on the safe side, they assign anything remaining to the "other" item.

Where the content of such items cannot be made clearly explicit, and at the same time cannot represent a statistically significant set by virtue both of its own weight and of a real differentiation from other items, it is advisable not to use such items.

(2) Special cases

NACE Rev.1, at one level, and ISIC Rev.3 at another level, are international classifications. It may happen that some activities which are important in some countries are only marginal or altogether non-existent in other countries. This obviously occurs in agriculture, where the products are very much a function of the climatic zone. It also applies to the "size" of countries or to certain highly specific activities (nuclear industry, treatment of toxic wastes etc.).

In contrast with the situation described above, these classes should be preserved in the countries concerned. It is useful information, for the purposes of international comparison, to know whether a given activity is present or absent in a particular country. This does not oblige these countries to publish "empty" data in all their publications. More aggregated levels can be used in certain cases.

10. Strength and weakness of the case-law procedure

The case-law procedure consists of deciding officially, within the CPS-NACE-CPA Committee, on the classification of certain activities, generally minor ones.

In principle, this procedure tends to ensure homogeneous interpretation of NACE in all user countries, which constitutes its strength. However, the need for the Committee to provide a clear reply, together with an often limited description of the problem to be settled and with differences in sensitivity between the members of the Committee, leads to a formal voting procedure, which constitutes its weakness.

At this kind of level of detail a majority decision is rarely carefully considered, not because the participants are incompetent but because speed is of the essence and there is little time for serious consideration. There is no protection at all against contradictory decisions solely because the question may be asked in different terms.

Moreover, these formal decisions increase the rigidity of the overall system, which is not necessarily beneficial. It would be preferable for the

majority of such decisions to be reached in a simpler way. The Committee secretariat could itself reply, without prior discussion within the Committee, to the majority of the questions raised. These replies would then be approved en bloc by the Committee unless one of them was disputed. Such a method would place all countries using the classifications drafted by the European Union on the same level, which would only be advantageous.

11. Increased interdependence of the international system

The basic data on the production apparatus are interdependent. The architecture of the international system of classifications of activities and products reflects this interdependence through its own means.

This leads to formal interdependence of the various components of the system. As a result of this, an individual component is not interpreted without taking account of the implications that the interpretation might have for the other components.

This state of affairs has its advantages but also its drawbacks.

It has advantages inasmuch as the overall system is more homogeneous than if it were constructed of unlinked pieces, and also because it simplifies the tasks of data collection and collation.

It has drawbacks inasmuch as this interdependence increases the overall rigidity of the system: we are no longer "free" to make our different interpretations, for these interpretations have to take into account the system in its entirety, not just the only part that concerns us here and now. But is this last point truly a "drawback"?

12. How to manage the relationships between classifications

This heading covers two entirely different questions:

- * how to set about the everyday management of one of the classifications in the system?
- * what technical resources are available for automating this management to a greater or lesser extent?

a. Everyday management

This is what might be called "everyday interpretation", i.e. all the questions that arise concerning the classification of a unit or the classification of a product without calling the general structure into question.

The general mechanism, which links the customs classification to the most aggregated levels of the statistical classifications of products and activities, can usually supply the answer to this question. Obviously this procedure only applies with regard to "transportable" goods. By analogy there could be a similar procedure for services in general (divisions 50 and above) and construction. In fields that are sufficiently well known to statisticians, where the explanatory notes are sufficiently well developed, this could indeed be applied without giving rise to new difficulties.

In areas that are less familiar, the very structure of the network of statistical classifications could be called into question. Special attention needs to be paid to such situations. These problems take us back in fact to the "design" stage of the system. The difficulty is particularly pronounced when the issue questions the borderline between two large sectors (for example: dissemination of a "newspaper" by information technology: does this come under "publishing of newspapers" [NACE22.12] or under division 64 or 72?).

b. Technical resources

It is for each individual to choose the technical system corresponding to his needs, resources and organization. There is no entirely general method that can be implemented in all cases.

Some general principles can be stated :

(1) Centralization of interpretations

It is essential that within a given statistical system, all everyday interpretations made are centralized at a location accessible to all. This is the only way to ensure that, when the same question is repeated, it receives the same response, even if an imperfect one.

(2) Creation of a "coordination site"

For somewhat more difficult questions, contact between the various statistical services concerned is often essential. This may take the form of a phone call or a chat in the corridor, and in some cases this is sufficient. However, it is preferable to place these contacts on a formal basis so that a record of them remains. The purpose here, as is often the case, is to ensure adequate continuity in interpretations.

Use of information technology

In its present form the network of statistical classifications covering the field of economics lends itself particularly well to processing by computer. It is also important to define it in such a way that it complies with the general needs within the statistical institute and not with the idiosyncrasies of the drafters of classifications.

Various systems are possible, using the management softwares available on the market, software designed to specifications prepared within the institute, or some other solution.

In all cases the system should include:

- * the links between the national and international classifications
- * the titles of the items at each level
- * the explanatory notes concerning these items, not only the official notes but also those resulting from the interpretations made.

It is not essential to include all these in a single file, provided that it is possible to access the information from any entry point.

It would be desirable to include in the system:

- * an area for recording unconfirmed interpretations
- * electronic mail for statisticians and classification drafters so that all of them can give their views on problems encountered by either party.

13. Questions specific to countries outside the EU

These are countries which use the NACE-CPA system but are not legally subject to EU regulations. Two topics may be of common interest:

- * How did each country organize the transition from the old to the new system of classification?
- * Is the information concerning changes in the NACE-CPA system, including modifications affecting the NC, available in time (and can the specific needs of these countries be expressed and taken into account)?

a. *Transition from the old to the new system*

It is assumed that the national classifications constructed on the basis of NACE Rev.1 and CPA have been completed and that their relations with the EU system are correct.

The following questions then arise:

- * What choices were made to achieve this objective and why?
- * What specific problems were encountered, apart from the difficulties associated with any modification in classification?
- * What are the difficulties arising from the structure of the previous statistical system and what difficulties have arisen from the introduction of an unfamiliar approach? How do these difficulties compare with any that have been encountered by the countries which recently joined the European Union?